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ABSTRACT

This handbook has been written to enable schools and community agency staff to carry out required evaluations under the Drug-Free Schools and Communities Act. However, its applicability is not restricted to programs supported through that Act. The handbook describes the why and how of program evaluation and outlines the steps in conducting evaluations. A premise guiding this handbook is that many evaluations that use simple designs can be conducted without formal training in program evaluation. This handbook has three chapters. Chapter 1 is an overview of evaluation planning. Chapter 2 provides more detail on the steps in designing an evaluation, and chapter 3 tells the story of an evaluation conducted by a fictitious school district. The handbook presents the basic concepts that guide program evaluation. Where greater help may be needed, the discussion refers the reader to the appendix and to more detailed information from other sources. The guide also indicates points in the course of designing and carrying out an evaluation where program officials may wish to consult with evaluation specialists inside or outside their districts or organizations. An evaluation can be an important tool in improving the quality of a prevention program if it is integrated into the fabric of a program rather than added on after the fact. Program personnel are more likely to use the results of an evaluation when they play a role in deciding what to examine, conducting the evaluation, and interpeting the results. Many of the evaluation steps outlined in this handbook can be carried out by program staff in schools and community agencies. (Author)

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# UNDERSTANDING EVALUATION:

# THE WAY TO BETTER PREVENTION PROGRAMS

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# UNDERSTANDING EVALUATION:

# THE WAY TO BETTER PREVENTION PROGRAMS

*Lana D. Muraskin*

*1993*

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# Introduction to Evaluation

This handbook has been written to enable school and community agency staff to carry out required evaluations under the Drug-Free Schools and Communities Act (DFSCA). However, its applicability is not restricted to programs supported through that Act. The handbook describes the why and how of program evaluation and outlines the steps in conducting evaluations. A premise guiding this handbook is that many evaluations that use simple designs can be conducted without formal training in program evaluation.

The handbook has three chapters. Chapter 1 is an overview of evaluation planning. Chapter 2 provides more detail on the steps in designing an evaluation, and Chapter 3 tells the story of an evaluation conducted by a fictitious school district. The handbook presents the basic concepts that guide program evaluation. Where greater help may be needed, the discussion refers the reader to the appendix and to more detailed information from other sources. The guide also indicates points in the course of designing and carrying out an evaluation where program officials may wish to consult with evaluation specialists inside or outside their districts or organizations.

An evaluation can be an important tool in improving the quality of a prevention program if it is integrated into the fabric of a program rather than added on after the fact. Program personnel are more likely to use the results of an evaluation when they play a role in deciding what to examine, conducting the evaluation, and interpreting the results. Many of the evaluation steps outlined in this handbook can be carried out by program staff in schools and community agencies.

## Why Evaluate Drug and Alcohol Prevention Projects?

Prevention programs that address drug and alcohol use are operating in a relatively new field. There are few interventions of proven effectiveness and the knowledge base is still growing. Thus, there are many reasons to conduct evaluations, including the following:

- To determine the effectiveness of programs for participants;
- To document that program objectives have been met;
- To provide information about service delivery that will be useful to program staff and other audiences; and
- To enable program staff to make changes that improve program effectiveness.

In other words, evaluations help to foster accountability, determine whether programs "make a difference," and give staff the information they need to improve service delivery.

In addition, the prevention programs supported through the DFSCA are required to assess their activities and services. All grant programs funded under DFSCA must conduct evaluations, including programs funded through:

- State and local formula grants;
- Federal activities grants;
- School personnel training grants;
- Counselor training grants;
- Model demonstration grants; and
- Emergency grants.

The legal requirement reflects the need for Federal accountability in administering the DFSCA. The U.S. Department of Education must report to Congress on the effectiveness of the DFSCA in establishing prevention programs for grades K-12 and in reducing drug and alcohol use. The evaluations conducted by grantees will assist in that process. Evaluation can help expand practitioners' and policymakers' understanding of the effectiveness of DFSCA-supported programs.

This handbook will describe a variety of evaluation activities so that school districts and community agencies can tailor evaluations to their local program objectives and needs. For example, districts or agencies with limited evaluation resources may want to concentrate on finding out how effectively they are delivering the services that they set out to offer. An agency with restrictions on the services it can provide may want to know how those restrictions affect program delivery.

The staff of districts or agencies with greater resources and evaluation capability can expand their evaluations to learn how successfully they are affecting student behavior and then build on their projects' most successful components. Districts may also have obligations to report to local authorities or other constituencies on their programs' impact on student alcohol or other drug use. The most compelling argument for continuing a program is that it made a positive difference for participants and for a community.

## What is Evaluation?

Evaluation is the systematic collection and analysis of data needed to make decisions, a process in which most well-run programs engage from the outset. Here are just some of the evaluation activities that are already likely to be incorporated into many programs or that can be added easily:

- Pinpointing the services needed—for example, finding out what knowledge, skills, attitudes, or problem behaviors a drug or alcohol prevention program should address;
- Establishing program objectives and deciding the particular evidence (such as the specific knowledge, attitudes, or behavior) that will demonstrate that the objectives have been met. A key to successful evaluation is a set of clear, measurable, and realistic program objectives. If objectives are unrealistically optimistic or are not measurable, the program may not be able to demonstrate that it has been successful even if it has done a good job;
- Developing or selecting from among alternative program approaches—for example, trying different curricula or policies and determining which ones best achieve the goals;
- Tracking program objectives—for example, setting up a system that shows who gets services, how much service is delivered, how participants rate the services they receive, and which approaches are most readily adopted by staff; or
- Trying out and assessing new program designs—determining the extent to which a particular approach is being implemented faithfully by school or agency personnel or the extent to which it attracts or retains participants.

Through these types of activities, those who provide or administer services ***determine what to offer and how well they are offering those services.*** In addition, evaluation in drug education can ***identify program effects***, helping staff and others to find out whether their programs have an impact on participants' knowledge or attitudes about drugs and alcohol, forestall participants' use of drugs, or reduce drug use.

The different dimensions of evaluation have formal names: **process**, **outcome**, and **impact** evaluation. These three dimensions can also be thought of as a set of assessment options that build upon one another, allowing program staff to increase their knowledge about the activities they undertake as they incorporate more options or dimensions into their evaluation.

***Process evaluation describes and assesses program materials and activities.*** Examination of materials is likely to occur while programs are being developed, as a check on the appropriateness of the approach and procedures that will be used in the program. For example, program staff might systematically review the units in a curriculum to determine whether they adequately address all of the behaviors the program seeks to influence. A program administrator might observe teachers using the program and write a descriptive account of how students respond, then provide feedback to instructors.

Examining the implementation of program activities is an important form of process evaluation. Implementation analysis documents what actually transpires in a program and how closely it resembles the program's goals. For example, after a new drug-free school policy has been adopted, how is it enforced? If the policy mandates parent conferences for all first infractions and suspensions for subsequent infractions, is the policy heeded? If not, why? What could be done to achieve better enforcement? Establishing the extent and nature of program implementation is also an important first step in studying program outcomes; that is, it describes the interventions to which any findings about outcomes may be attributed.

***Outcome evaluation assesses program achievements and effects.*** Outcome evaluations study the immediate or direct effects of the program on participants. For example, when a 10-session program aimed at teaching refusal skills is completed, can the participants demonstrate the skills successfully? This type of evaluation is not unlike what happens when a teacher administers a test before and after a unit to make sure the students have learned the material. The scope of an outcome evaluation can extend beyond knowledge or attitudes, however, to examine the immediate behavioral effects of programs.

***Impact evaluation looks beyond the immediate results of policies, instruction, or services to identify longer-term as well as unintended program effects.*** It may also examine what happens when several programs operate in unison. For example, an impact evaluation might examine whether a program's immediate positive effects on behavior were sustained over time. It might also look at whether the introduction of a community-wide prevention program with components administered by schools, agencies, and churches resulted in fewer teenage drug-related arrests or deaths.

Some school districts and community agencies may limit their inquiry to process evaluation. Others may have the interest and the resources to pursue an examination of whether their activities are affecting participants and others in a positive manner (outcome or impact evaluation). The choices should be made based upon local needs, resources, and requirements.

Regardless of the kind of evaluation, all evaluations use data collected in a systematic manner. These data may be quantitative—such as counts of program participants, amounts of counseling or other services received, or extent of drug use. They also may be qualitative—such as descriptions of what transpired at a series of counseling sessions or an expert's best judgment of the age-appropriateness of a skills training curriculum. Successful evaluations often blend quantitative and qualitative data collection. The choice of which to use should be made with an understanding that there is usually more than one way to answer any given question.

## Why Conduct Program Evaluations?

**Before assessing a program, it is critical to consider who is most likely to need and use the information that will be obtained and for what purposes.**

Evaluations serve many purposes. Before assessing a program, it is critical to consider who is most likely to need and use the information that will be obtained and for what purposes. Listed below are some of the most common reasons to conduct evaluations. These reasons cut across the three types of evaluation just mentioned. The degree to which the perspectives of the most important potential users are incorporated into an evaluation design will determine the usefulness of the effort.

### Evaluation for Project Management

Administrators are often most interested in keeping track of program activities and documenting the nature and extent of service delivery. The type of information they seek to collect might be called a "management information system" (MIS). An evaluation for project management monitors the routines of program operations. It can provide program staff or administrators with information on such items as participant characteristics, program activities, allocation of staff resources, or program costs. Analyzing information of this type (a kind of process evaluation) can help program staff to make short-term corrections—ensuring, for example, that planned program activities are conducted in a timely manner. This analysis can also help staff to plan future program direction—such as determining resource needs for the coming school year.

Operations data are important for responding to information requests from constituents, such as funding agencies, school boards, boards of directors, or community leaders. Also, descriptive program data are one of the bases upon which assessments of program outcome are built—it does not make sense to conduct an outcome study if results can not be connected to specific program activities. An MIS also can keep track of students when the program ends to make future follow-up possible.

### Evaluation for Staying On Track

Evaluation can help to ensure that project activities continue to reflect project plans and goals. Data collection for project management may be similar to data collection for staying on track, but more information might also be needed. An MIS could indicate how many students participated in a prevention club meeting, but additional information would be needed to reveal why participants attended, what occurred at the meeting, how useful participants found the session, or what changes the club leader would recommend. This type of evaluation can help to strengthen service delivery and to maintain the connection between program goals, objectives, and services.

## Evaluation for Project Efficiency

Evaluation can help to streamline service delivery or to enhance coordination among various program components, lowering the cost of service. Increased efficiency can enable a program to serve more people, offer more services, or target services to those whose needs are greatest. Evaluation for program efficiency might focus on identifying the areas in which a program is most successful in order to capitalize upon them. It might also identify weaknesses or duplication in order to make improvements, eliminate some services, or refer participants to services elsewhere. Evaluations of both program process and program outcomes are used to determine efficiency.

## Evaluation for Project Accountability

When it comes to evaluation for accountability, the users of the evaluation results likely will come from outside of program operations: parent groups, funding agencies, elected officials, or other policymakers. Be it a process or an outcome evaluation, the methods used in accountability evaluation must be scientifically defensible, and able to stand up to greater scrutiny than methods used in evaluations that are intended primarily for

"in-house" use. Yet even sophisticated evaluations must present results in ways that are understandable to lay audiences, because outside officials are not likely to be evaluation specialists.

### Evaluation for New Program Development and Dissemination

Evaluating new approaches is very important to program development in any field. Developers of new programs designed to prevent drug and alcohol abuse need to conduct methodical evaluations of their efforts before making claims to potential users. Rigorous evaluation of longer-term program outcomes is a prerequisite to asserting that a new model is effective. School districts or community agencies that seek to disseminate their approaches to other potential users may wish to consult an evaluation specialist, perhaps a professor from a local university, in conducting this kind of evaluation.

## Risks of Evaluation

Despite their value, evaluations are not always welcomed. Because they carry risks and use scarce resources, and because staff may be unsure how to conduct them, evaluations are often a low priority for programs. Evaluations are sometimes postponed until the last possible minute or avoided altogether. By understanding the potential difficulties before designing an evaluation, however, it is possible to avoid some of those risks or to minimize their effects.

Evaluations can create anxiety among program staff. Staff members may feel threatened by an evaluation because they believe that their individual performance is being scrutinized or that the program's fate hangs in the balance. They may believe that the tools of evaluation are ill-suited to measure the positive changes they see occurring. The best method to overcome staff members' fears and resistance is to involve them in designing the evaluation and in interpreting its findings.

**Staff will be less likely to see an evaluation as interference if they are consulted in its design and execution.**

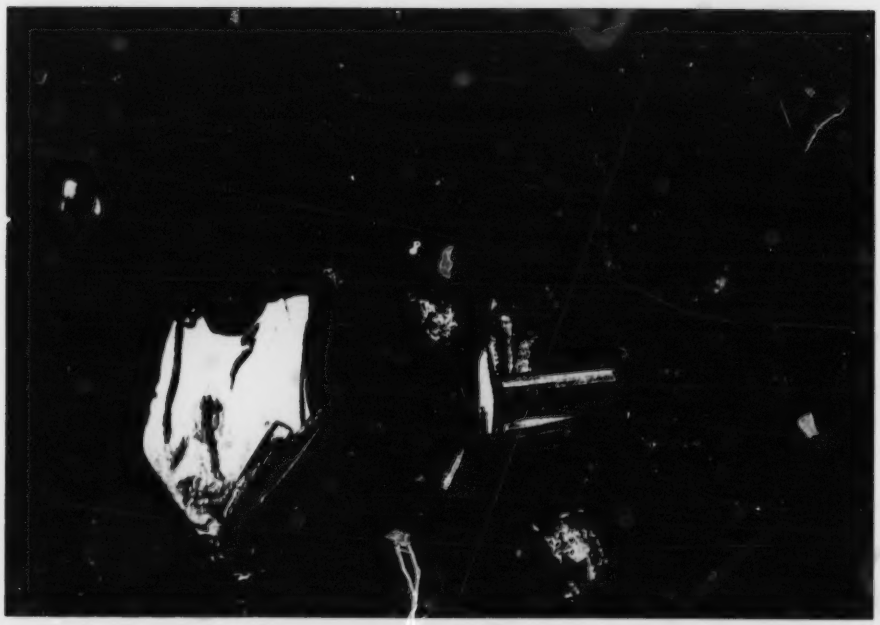
Evaluations can interfere with program activities. Sometimes there are trade-offs between program evaluation and service delivery. For example, observation of a counseling session by an outsider may interfere with the group process. Administration of questionnaires may take time away from instruction or other activities. There are no simple solutions to these problems, but careful evaluation planning, limits on an evaluation's scope, and continued attention to its time and resource burden can minimize disruption. Again, if staff are consulted in its design and execution, they will be less likely to see an evaluation as interference.

Evaluations compete with services for scarce resources. For example, a program may have to balance the cost of an evaluation specialist or computer time to process data against the cost of an additional counselor. Careful planning can reduce evaluation costs, however, and a solid evaluation may help to reduce program costs later by highlighting opportunities for program efficiency.

Evaluation results may be misused. Care must be exercised in the interpretation of data in order to avoid exaggerated or unwarranted claims of program effectiveness. The inevitable loss of credibility from such practices far outweighs any short-term gains. To forestall problems, it is important to make sure that results are stated clearly and unambiguously. Vaguely worded reports are more likely to be misinterpreted or misrepresented by others. A later section of the handbook discusses ways to present evaluation data clearly and fairly.

## Steps in Planning Evaluations

Assuming that the benefits, risks, and costs have been considered and that the decision to proceed has been reached, there are practical steps in designing evaluations. This section outlines some of the decisions that school and community prevention program staff must make in planning program evaluations. Chapters 2 and 3 of the handbook will discuss these steps in greater depth, using a fictitious school district evaluation to highlight major activities.



### Identifying the Evaluation's Consumers

This point was made earlier, but it is important to reiterate that identifying the potential users will help to determine what questions are most important, what data will be viewed as credible, what analyses should be conducted, and how results should be transmitted and displayed. It is a good idea to solicit the views of other consumers, along with program staff, in drawing up the evaluation questions. Depending on the programs and setting, consumers may range from parents and the school board to other institutions, funding agencies, or broadcast media.

### Choosing the Important Evaluation Questions

There is rarely enough time or resources to answer all of the questions about program practice and effects that consumers pose. A way must be found to establish priorities and to limit the number of questions. The most desirable method is to agree on a limited number of evaluation questions when the program goals and objectives are first established, but often the evaluation questions are drawn up after the fact or the program has multiple goals. Under these circumstances, the number of possible questions may be

**One device to limit the inquiry is to ask each critical evaluation user to complete the statement, *"I need to know ____ because I need to decide____."***

very large. One device to limit the inquiry is to ask each critical evaluation user to complete the statement, "I need to know ____ because I need to decide____." As noted earlier, some programs may choose only questions that describe the intervention they carried out, while others may go further and examine the impact of the intervention.

When the range of possible questions is agreed upon, estimates can be made about the benefits and costs of answering or not answering each of them. Some questions may be too costly to answer. Others may require a level of expertise in evaluation that is not available to the school district or agency. There may be simple measures that can achieve adequate results for some questions, making them candidates for inclusion. For example, a postcard follow-up survey of teachers who attended an in-service program might be sufficient to ask a few key questions about use of program materials. On the other hand, extensive questionnaires or classroom observation might be necessary to determine the extent to which, or the manner in which, teachers used particular instructional techniques.

### Mapping Out an Evaluation Work Plan

It is critical to create a step-by-step work plan for conducting the evaluation. The first step will be to review the questions and group them in some logical manner—by subject area, by the data needed to address them, by process/outcome/impact, or in some other manner. ***The plan should then outline the data that will be collected and how the information gathered will relate to each evaluation question.*** Suppose the questions are: how many hours of instruction and practice in drug refusal skills did the typical student receive during a semester, and did the number of hours vary substantially by classroom or school? What method(s) will be used to document the extent and nature of the services provided? Will evaluators review student records, review teacher logs or lesson plans, interview all the teachers or a sample of teachers, or administer student questionnaires? If teachers' lesson plans are used to document the amount of instruction, what data will be collected from those records and what evidence will indicate that refusal skill instruction took place on a particular day? What if lesson plans and teacher questionnaires disagree?

Once the data are in hand, how will the determination be made that substantial variation in implementation has or has not occurred across schools? More detail on planning for data collection and analysis is presented in Chapter 2.

### Making Sure Adequate Resources are at Hand to Carry Out All Functions

Evaluation is labor intensive. At a minimum, an evaluation of a school or community prevention program will require that the following resource-intensive functions be performed:

- **Evaluation Planning**—formulating the overall evaluation strategy and identifying or developing the necessary evaluation instruments. A study of outcomes also may necessitate establishing participant and comparison groups and gaining parental consent for student questionnaires;
- **Data Collection**—administering questionnaires, conducting interviews, observing program operations, or reviewing or entering data from existing data sources;
- **Data Coding**—collating the information gained through data collection, ensuring that it is accurate, and translating collected data into usable formats for analysis; and
- **Data Analysis**—conducting any statistical analyses related to evaluation hypotheses, preparing summary statistics, charts, tables, and graphs.

Data collection and coding may be performed by program staff or sometimes students (with proper training and supervision), but data analysis may require specialized skills and training. This is another activity for which program staff might wish to consult an outside expert.

Even simple evaluation designs probably will require the use of computers to maintain an MIS or to aggregate data on participant and comparison groups, services, and the like. Computers probably will be used for data analysis in any study that goes beyond simple counting of heads. Evaluators should be sure that the project has access to appropriate and adequate computing resources for establishing files and coding information—especially the right software and personnel who know how to use it. Most school districts have computer services staff who can be enlisted to help.

In addition to this handbook, there are many written resources that can aid program managers in learning more about school- and community-based prevention program evaluation. The appendix of this handbook lists several relevant evaluation guides as well as information on compilations of survey instruments that address drug use. It also includes a list of the U.S. Department of Education Regional Centers for Drug-Free Schools and Communities, which provide assistance in evaluating drug education programs.

## Addressing Practical Problems in Planning and Implementing Evaluations

Some problems arise so often in conducting evaluations that they are noted here. Several of these problems are discussed in greater detail later in the handbook.

***There may be governmental or institutional research regulations to meet in drawing up an evaluation plan***. The restrictions that apply when Federal education funds are used to ask questions of children are addressed in the next section of the handbook. In addition, states have rules regarding research with human subjects, especially when programs ask questions about behavior. These rules may deal with confidentiality or parental consent. Evaluators must ensure that all such requirements are addressed when the evaluation is being planned. State offices that coordinate drug education programs should be able to inform schools and agencies about any state legal requirements.

***There may be difficulty in determining appropriate groups with which to compare program participants in order to study program outcomes or impact***. If there is no group in the school, district, or agency that does not receive the service, it may be difficult to find a group with which to compare participants. Although establishing a comparison group to study outcomes may be problematic, comparisons with such groups are one way of demonstrating program impact. Possible solutions to this problem are discussed later in the handbook.

***Existing data sources may not be of sufficiently high quality to yield meaningful evaluation results or may not be kept in a usable format***. For example, school records on disciplinary actions may be incomplete or lacking in detail. Knowing the limitations of available data early on will allow evaluation planners to gauge the amount of effort and time needed to collect additional information. Knowing in advance that available data are not sufficient can enable project staff to seek additional financial support and administrative or other approval for further data collection.

***Evaluation tasks will invariably take more time than is originally anticipated***. Establish a realistic schedule, and a budget that includes a little more resources than are initially anticipated to be necessary. It is always easier to reallocate unneeded resources than to find additional resources to fill an underestimated need. For example, procedures for obtaining written informed parental consent for student data collection can take a great deal of time. Or questionnaire responses may be incomplete and additional follow-up may be necessary. Evaluators should not expect everything to run smoothly.

***Not every data collection strategy will be implemented as planned, so evaluators should prepare for contingencies***. In other words, evaluation planners should not put all of their information "eggs" in one data collection "basket." It is useful to begin an evaluation with multiple data collection strategies or alternatives in mind. For example, a well-written survey can still have a low response rate because of high absenteeism on the days set aside for data collection. Or a comparison group can become "contaminated" by inadvertent exposure to the program, reducing the group's value. Program participants may drop out of school subsequent to the program, making it difficult to find them for a follow-up survey. Even if substitute approaches are more limited, they will be better than not completing the evaluation.

## Obtaining Technical Assistance From Outside the Project

Program administrators may want to consult in-house (district or agency) evaluation specialists, staff of other programs who have conducted evaluations, or groups established to provide technical assistance (such as the U.S. Department of Education Regional Centers for Drug-Free Schools and Communities) on specific elements of assessment. Or the staff may want to commission an outside individual or group to conduct the evaluation. In selecting individuals or groups to provide technical assistance, it is important to assess their likely contribution before making a choice. Among the elements to consider are the following:

- The individual or group should have specific background and experience in conducting evaluations of school- and community-based alcohol and other drug prevention programs.
- The individual or group should be able to offer assistance with a variety of quantitative and qualitative evaluation techniques in order to allow flexibility in evaluation planning (unless, of course, the program seeks consultation in some specific area such as statistical analysis).
- The individual or group should be sensitive to the program goals, and to values and attitudes of the school or community in which the evaluation will be conducted.

For any type of evaluation, a specialist can help project staff develop the evaluation plan by asking appropriate questions, providing examples of comparable evaluations conducted elsewhere, reviewing drafts of work plans, and helping to make sure that the data will yield the type of information sought. Evaluation design is a critical step for which staff should seek guidance if expertise is not available in house. No matter who is consulted, however, those involved with the program must agree to the questions and procedures.

Consultation and technical assistance resources include the following:

- The school district evaluation or program assessment office;
- Local universities (talk with people in the departments of education, sociology, public health, etc.);
- State agencies charged with implementing Federal or state drug and alcohol education programs; and
- The U.S. Department of Education Regional Centers for Drug-Free Schools and Communities (names and addresses are included in the appendix).

Chapter 2 of the handbook explores evaluation design in greater detail. It begins by introducing a fictitious school district searching for a new drug and alcohol prevention program. The story provides the basis for examining each major step in evaluation. The chapter concludes with a discussion of evaluation findings and how they can be presented.

## The Context for an Evaluation

To set the stage for a discussion of the components of evaluation planning, we turn to a fictitious district, Wood County, which is about to adopt a new drug education program.

### Wood County School District Adopts a New Drug Use Prevention Program

Parent leaders of Wood County School District have become increasingly concerned about drug and alcohol problems among students at Wood Regional High School. In the past year, four students have been caught with drugs at the high school and, in the past month, a party attended by more than 100 seniors was characterized by heavy drinking. Three students leaving the party had a near-fatal automobile crash. The parents demand that the district change its approach to drug and alcohol abuse prevention. In response, the school board asks the superintendent to take immediate action.

Advocates of a variety of approaches are invited to make presentations before a committee of parents, administrators, and teachers convened by the superintendent. Each makes a persuasive argument for his or her program and cites evidence of its effectiveness. After much discussion, the group decides to recommend that the district adopt the "Way to Go" program: a combination of policies aimed at deterring the use or possession of drugs at school (calling for suspension and referral for mandatory substance abuse assessment, or expulsion); a curriculum for grades 9-12 that incorporates drug prevention education into science, health, and physical education classes; parent education; and a system of voluntary referrals for drug and alcohol treatment. The recommendation is presented to the Wood County School Board for approval.

The school board is impressed with the "Way to Go" program but is skeptical about some of the program's effectiveness claims and concerned about its cost. Not only are initial expenses for program materials considerable, but there will be substantial expenses for in-service staff training. Board members want assurances that the program will really change school practices and instruction. Most important, they want to know whether it "works," whether it convinces students not to take drugs or drink, and they want to know sooner rather than later. Seeking quick

approval, the superintendent assures the board that the district will evaluate the program and report back within a year. The board approves the "Way to Go" program. Unfortunately, no additional funds are authorized to assess its effectiveness.[1]

A week later the district officials responsible for administering prevention programs meet to figure out how they will respond to the board's request. They, too, want to find out if the program works, but they face a number of potentially conflicting pressures. They helped to pick the program from among others so they have already become at least partially convinced that it works. In addition, they played a key role in recommending the program to the board, so they could well be embarrassed if the program proves to be ineffective. They are also concerned that teachers will resent the time spent on evaluation as intruding on instruction. And, finally, they have little in-house expertise and few resources to conduct an evaluation.

Ms. Brown, the district drug program coordinator, has thought about the problems ahead of time and now offers her recommendations. Based upon a consideration of the statement in Chapter 1 of the handbook, "I need to know ___ because I need to decide ___," as well as an assessment of time, in-house evaluation capabilities, and resources, she makes the following comments:

> "First, the program we have selected has a large number of elements and we have few resources. As a result, we need to narrow the evaluation scope in some manner. I recommend that we focus the examination of program outcomes on the policy and curriculum components because they should affect the largest number of students.
>
> Second, before we study whether the program is effective, we need to know whether the elements of the program are in place. Not only has the school board asked for this information, but we had considerable trouble getting the teachers to adopt the previous curriculum and we never really knew whether they were using it properly. Furthermore, it won't make sense to focus on outcomes if we can't show that changes were the result of the "Way to Go" program. We need a plan for tracking the adoption of the program, especially the components whose outcomes we plan to study.
>
> Finally, to ensure that the teachers are with us on this, we need to enlist their advice in drawing up the design. We should ask them to help us identify the effects that will be measured and, perhaps, some of

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[1] The events in Wood County are described only to set the stage for, and discuss the steps in, evaluation. This handbook does not endorse the program selection method used by the Wood County School District.

the specific questions that should be asked of the students.

I believe that adopting this approach should not cost a great deal of money but will help us to learn whether the program is being adopted and whether it is effective. It will also build our credibility with the school board. Even if we find out that some elements are not effective, we will be able to recommend appropriate steps that can be taken to revise the program. We will be seen as innovators, critically trying out new approaches. ❞

Needless to say, the recommendations are compelling and the others approve the plan in general terms. But they also decide to form an ongoing evaluation committee. In addition to two administrators, membership is expanded to include two teachers, two parents, and a student leader. The committee will review available evaluation approaches and methods. After the review, it will make final decisions on evaluation design and methods.

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Now it is time to translate Ms. Brown's recommendations into a plan. This chapter explores the elements in designing an evaluation plan, referring back to Wood County to highlight key points. Issues discussed in this section include how to refine the evaluation questions; track program implementation; identify appropriate groups with which to compare program participants and determine project outcomes; assure that data collection instruments are appropriate, valid, and reliable; and meet the need for confidentiality in obtaining information about individuals. The section also discusses data analysis and presentation of evaluation results.

## Refining The Evaluation Questions

As noted in Chapter 1, the first task in any evaluation is to identify and narrow the questions that will become the focus of the evaluation.

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**The Wood County School Board helped to simplify the choice of evaluation questions by providing general guidance about what it wanted to know. First of all, it wanted to know whether the 'Way to Go' program was actually adopted. The answer to this question was important in itself, to allow the school board to determine whether funds were properly spent and services delivered as intended. Ms. Brown recommended narrowing the inquiry further, to focus on the program's disciplinary policy and curriculum. Tracking the installation of these parts of the program could also help the staff to identify problems in implementation and to make corrections. And, as Ms. Brown pointed out, documenting the extent and nature of program implementation would also be an important precursor to studying program effects. The committee meets repeatedly over the next several weeks to decide on specific questions that will address both program operation and program effects. It, too, asks what decisions will need to be made as a result of the evaluation, and what information is most critical to making those decisions, keeping in mind their limited resources and time.**

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This section explores some of the issues the committee will confront as it tries to decide exactly what questions to select.

### Documenting and Analyzing Program Installation and Operations

Evaluation of the implementation of a program is a good example of process evaluation. The object is to understand how program plans and objectives are translated into action. Process evaluation may be undertaken in order to monitor project activities, ensure accountability (e.g., demonstrate that planned services are delivered in a timely manner), improve service delivery (e.g., identify obstacles and adjust activities), or set the stage for assessment of project outcomes. Some audiences may be most interested in accountability, but others may be more interested in improving service delivery.

Monitoring the implementation and operation of a program usually involves identifying and tracking specific program activities or objectives. For example, if a first step

in implementing a program is teacher training, the evaluation could examine the implementation of the training component. Here are a number of specific evaluation questions that could be asked about implementation of teacher training:

1. *Did the activity (or procedure) aimed at bringing about program implementation (in this case, the training) occur as envisioned? If not, what barriers or obstacles prevented parts or all of the activity from being executed?*

To document that an activity is conducted as planned, the evaluators need a means of monitoring the activity. Monitoring of teacher training, for example, might entail no more than checking the sign-in sheets to find out how many staff attend, whether the staff who attend are those who are supposed to implement the program, and whether they stay for the entire training session. A more ambitious plan might involve exit questionnaires or enlisting an objective party (someone unconnected with the training) to observe the training and to write an assessment of how well the content of the sessions reflects program objectives. These observations could be carried out by the drug program coordinator, a district administrator, or someone hired by them specifically for this purpose.

2. *Did the clients (or participants) find the activity useful, and did they plan to use what they had learned?*

Asking people to implement a curriculum or staging a training session to introduce a program is no guarantee that implementation will occur. To get a better fix on the likelihood of use, the evaluators could ask the participants about the quality and usefulness of the information designed to aid implementation (such as a curriculum guide or trainer presentation). That information would allow the persons charged with fostering implementation to get immediate feedback on how well they are teaching or otherwise transmitting information and to make any necessary adjustments. A survey of training participants, for example, could provide a measure of the training's effectiveness—if the teachers say that they plan to use the information, the in-service session may be deemed effective, at least in a limited manner.

3. *Did the training result in the program operating as planned?*

This is clearly the most critical question about the implementation of a program, since it asks whether training approaches, curriculum materials, or other information or

techniques are being used by teachers in the classroom. It is both an implementation question (e.g., determining the result of initial training activities) and an intermediate question for a student outcome examination (because it must first be demonstrated that teachers implement the program before student outcomes can be measured). There are many ways that program operation could be measured. All teachers (or some teachers) could be asked a few questions about what they are doing in their classrooms, such as how often they use certain curriculum materials, whether they have completed particular curriculum units, or how many class sessions have been spent teaching particular skills to students. An unobtrusive measure of program operation could be a review of teacher lesson plans submitted to the school or district. To find out whether administrators are implementing new discipline policies, the district or agency could review disciplinary or treatment referral records. A more ambitious plan might entail classroom observations and interviews of teachers or administrators by district staff or an outside evaluator.

The choice of approach will depend, in part, on the reasons for conducting the assessment. If the district's goal is to document implementation (e.g., to show a funding source that the program was adopted), then a short questionnaire filled out by a sample of teachers (or a review of randomly selected lesson plans or disciplinary records) may be sufficient to demonstrate the extent of program operations. Based on the findings, the evaluator might conclude that "Eighty percent of the teachers who attended training report that they used the curriculum as prescribed" or that "Suspensions for alcohol offenses increased 60 percent after the introduction of the new disciplinary policy." If the district's goal is to gain high (or improve previous) rates of implementation, the inquiry might not only want to determine whether most staff are carrying out the program at some level, it might also pinpoint where and why the program is not being implemented. The barriers to implementation could then be addressed.

**If a goal is to find out how program exposure is related to student behavior, ascertaining the degree of program implementation will require detailed information.**

If a further goal is to find out how program exposure is related to student behavior, ascertaining the degree of program implementation will require more detailed information. For example, the evaluators may decide to ask students how much exposure to "Way to Go" components they received, and ask teachers how many class sessions they devoted to "Way to Go" instruction.

After careful discussion of alternatives, the Wood County evaluation committee decides to focus its examination of program implementation on finding out (a) whether the appropriate staff receive in-service training; (b) whether teachers who receive training appear likely to use the new program; (c) whether teachers do, in fact, implement the program; and (d) whether the tough, new disciplinary policy at Wood Regional High School is enforced. To answer these questions, the committee proposes—

- *A review of attendance at the first teacher training workshop* to determine whether attendees were those persons "targeted" for the training (i.e., those who would be most likely to implement the program) and what percentage of attendees remained for the full five days.

- *An end-of-training questionnaire for all attendees.* The "Way to Go" developers have a standard participant assessment form that they use in workshops. The district has arranged to add a few items that ask about the likelihood that participants will use the program. The developers will provide the district with the results of those items at no additional cost. Because most of the items have been used repeatedly, district officials reason that no pilot test will be needed and most of the items are likely to be reliable.

- *A follow-up questionnaire of all health, science, and physical education teachers,* regardless of whether they attended the training. The questionnaire will ask about implementation of various components of the program, especially the curriculum and referral procedures. This questionnaire will be developed by the drug program coordinator and reviewed by the committee and the "Way to Go" trainer.

- *A review of drug-related disciplinary actions* taken by the district in the year prior to the introduction of the new program and in the current year.

## Observing Behavioral Outcomes and Attributing Changes to the Program

Many schools and community agencies will consider process evaluations to be sufficient for program assessment. They view their primary responsibility as delivering services in an appropriate and efficient manner. They use evaluation to determine whether those goals are being met and to improve service delivery where needed.

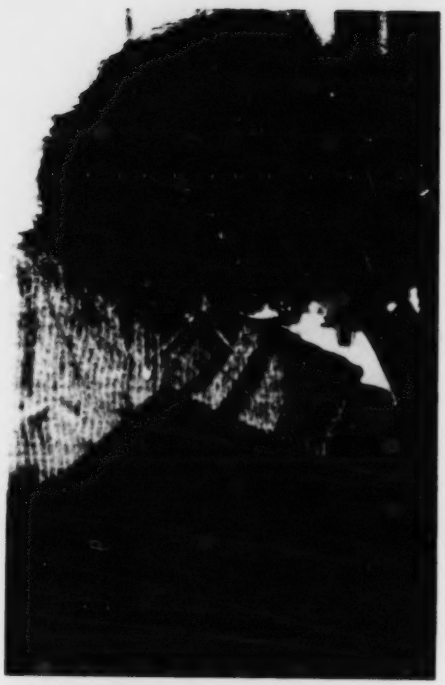
But other schools, districts, and community agencies (much like the Wood County School District) will want to find out whether their programs are effective for clients, whether they "make a difference" for recipients of services and others in the community. They will want to know whether a set of interventions changes student behavior or other indicators (such as DWI arrest rates) in order to decide how to proceed with their program. Outcome and impact evaluations identify changes that have occurred and analyze the changes to determine whether they are attributable to the program, that is, ***whether the changes would have occurred without the program activities.***

Demonstrating that changes in behavior occur as a result of a prevention program is not always simple, because behaviors such as alcohol and other drug use are likely to change over time. Children in programs mature, social norms change, new drugs are introduced, others become scarce. These conditions and many others can affect rates of alcohol and drug use independent of the effects of any specific activity (also called a "treatment"). A survey of participants in a program before and after a treatment may show that drug use did not increase, but critics may charge that the use rate would have remained stable anyway as a result of an intensive local media campaign or because of stepped-up drug arrests that diminished the supply of drugs to the community.

**Demonstrating that changes in behavior occur as a result of a prevention program is not always simple, because behaviors such as alcohol and other drug use are likely to change over time.**

The first step in conducting an assessment of outcomes is to decide exactly which changes are most important to measure. In the field of alcohol and drug abuse prevention, there are several common areas of outcome measurement for individuals, including changes in knowledge about drugs, attitudes about drug use, the ability to refuse drugs, and, of course, drug use. In addition, programs are sometimes assessed for their ability to delay the onset of drug use, as well as for improvements in skills or attitudes identified in research as influencing

or mediating drug use such as positive self-concept or self-esteem. Increasingly, evaluations are looking beyond the immediate effects on individual participants to assess the impact of programs on communities through such changes as reduced drug arrests, fewer emergency room incidents, less drug-related violence, or other indicators of "community health."



Once the specific outcomes have been identified, evaluation planners must explore how the assessment will ***relate changes in those outcomes to a service or package of services.*** There are a number of possible approaches, some of which are relatively simple and inexpensive, while others are ambitious and require considerable resources and planning. Some approaches focus exclusively on participants, while others compare participants with similar persons or groups.

**Assessment of treatment group only.** There are a range of possible comparisons that examine only the treatment group. The most common method is to collect data from the participant group both before and after the treatment. If this design were to be used at Wood Regional High School, for example, the 10th-grade students might be asked questions about their knowledge and use of alcohol and other drugs at the beginning and at the end of the school year (before the program begins and at the end of the first year of the program). The responses would be compared for evidence of changes in knowledge and behavior. An even more limited inquiry might focus on one part of the program—for example, a two-week instructional/skill-building component on drugs in health education—with pretests and posttests about drug knowledge or social refusal skills before and after that unit. This method would help the teachers to know whether students learned the information and skills.

One-group pretest posttest approaches are relatively inexpensive and easy to administer, but their main drawback is that it may not be possible to attribute changes in outcomes to the treatment. Suppose that a group of 10th-grade students shows the same



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level of drug use at the beginning and end of the school year. Should the program administrators conclude that a program offered in the interim was unsuccessful? Probably not. The reason is that 10th-grade students are at an age when experimentation with alcohol and drugs is likely to occur. It is possible that drug use would have increased without an intervention. But without information about the levels of use that might have occurred ***in the absence of the program,*** it would be hard to know whether the program had any effect on behavior.

One way to address this concern might be to compare changes in a treatment group to changes in some generally available "standard" of change in knowledge or behavior. For example, state agencies may administer questionnaires to students to find out about the prevalence of alcohol and drug use. The performance of a treatment group of 10th graders could be compared to that of "typical" 10th-grade students in that state's prevalence survey. Adjustments would be needed because surveys are usually administered only once a year, so they do not yield information on average or typical amounts of short-term behavior change. A partial solution might be to measure the behavior of 10th-grade students in Year One and that of 11th-grade students in Year Two, comparing those results with similar populations on the state questionnaire. Then the ***change*** between local 10th- and 11th-grade drug use rates could be compared with the overall changes for students of comparable age in their state.

***Of course, if students in a single school or district are not "typical" of students in the state, comparisons with that standard may be inappropriate.*** Treatment students may have higher initial alcohol use rates than average 10th-grade students statewide, so that even after an excellent program, their use rates may remain higher. They may also experience personal or community conditions that make it either easier or more difficult to refuse drugs. Or in schools with relatively high mobility, many of the Year Two 11th-grade students may simply not be the same students who participated in the 10th-grade program in Year One. State test administration dates and local program implementation may not be sufficiently complementary to make this kind of comparison possible, or the state may not measure or report behavior for the appropriate grades. Local programs may emphasize topics or behaviors different from those indicated in statewide surveys.

National trend data can also provide a point of comparison. Bearing in mind the issues just discussed, year-to-year changes in knowledge or behavior among participants might be compared to changes reported in such national surveys as ***Monitoring the Future,*** an annual survey of drug use among students in grades 8, 10, and 12, and young adults; or

the ***National Household Survey on Drug Abuse,*** a survey for which the responses of persons aged 12-17 can be identified as a group. The appendix contains additional information about these and other studies.

**A more rigorous way to determine the effects of a treatment is to compare the performance of those who receive the treatment with similar persons who do not receive it.**

**Assessment of treatment and comparison groups.** A more rigorous way to determine the effects of a treatment is to compare the performance of those who receive the treatment with similar persons who do not receive it. Such persons form a comparison group. Their knowledge, attitudes, or behavior are measured over the same interval as that of the participants. If "before and after" information is collected from both participants and these selected nonparticipants, and if the group that receives services has a lower rate of substance abuse than the nonparticipants after but not before the treatment, it can be said with greater assurance that the program contributed to the change.

One of the best ways to ensure that participant and nonparticipant groups are comparable is ***to assign people randomly to the treatment group and the comparison (or "control") group***. This procedure reduces the possibility that the treatment group is different from the comparison group in a manner that can affect program outcomes. This procedure is commonly used in testing the efficacy of new medicines, but it is hard to accomplish in education programs. In a school, denying a new or potentially more effective treatment to a group of students is frowned upon, and even if it were not, the treatment and control students might interact, thereby contaminating the comparison group. The process can be adjusted, however, so that classes or school buildings or community centers are randomly assigned to treatment or control status.

An alternative means to create comparison groups is to divide the potential participants into several groups and stagger the treatment, with some groups participating in the first offering of a program and the rest in subsequent offerings. This approach is particularly attractive when a program does not have the resources to provide the services to all likely participants at one time, or when all students are not required to receive the intervention. Those in the first group become the treatment group, and participants in subsequent offerings provide the "comparison" group. This approach only allows for short-term comparisons between groups, however, because eventually everyone receives the treatment.

To ensure that staggered groups are comparable, background information (e.g., gender, race, age, school attendance rates, academic test scores, etc.) should be analyzed. The more similar the groups, the more likely that any post-treatment differences between the groups are the result of the program. Even if the groups are somewhat different, background information can sometimes be used in statistical analyses to adjust for the differences. Or specific individuals from each group can be artificially selected for comparisons by the evaluators. However, approaches that "match" students artificially are risky, and require considerable knowledge of evaluation methods. A variant of this approach is to compare current 10th graders with 10th graders at the same school in the past year, if necessary historical data are available.

Perhaps there is simply no way to compare persons or groups in the same population that do and do not receive the treatment. This situation might occur if staggered treatment is impossible or if all possible subjects must be served together. Even in these cases, comparison groups may still be found. One possible comparison group might be students with similar personal and community characteristics (perhaps students in a neighboring high school or district). Once again, background information (including gender, race, age, school attendance, test scores, etc.) must be used to identify the similarities between the groups at the outset and may be used to aid in statistical analyses of findings.

The greatest problem in creating such matched comparison groups is ***knowing just what variables ought to be included in the match.*** If a match misses critical characteristics, the groups cannot be said to be truly comparable. It is easy to think of reasons why participant and comparison groups could be different. One common reason is that participants are chosen for a program in a purposeful manner. For example, participants in an agency-sponsored program may have volunteered to participate in the program. Volunteers are probably more likely to be helped by the program than are people in the same community, even when they share the same age, race, sex, socioeconomic status, or educational ability. Or participants may have been selected to receive the program because their school or community had specific problems. Such participants would be more likely to be troubled than a population that is similar with respect to age, sex, race, etc. Students may also have been scheduled into an intervention because they were all taking the same set of classes before and after drug education. As a result, they might share academic characteristics that could affect their drug-related behavior. The selection of appropriate treatment and comparison groups is an area in which program officials may want to consult with evaluation specialists within or outside of the district or agency.

After weighing considerations of accountability, rigor, and cost, the Wood County evaluation committee decides to limit the inquiry about the curriculum to the 300 students in the 10th grade at Wood Regional High School. The committee feels that focusing on a single age group will be sufficient to meet the school board's requirements while keeping evaluation costs relatively low. Ms. Brown reasons that 10th graders would be a good choice because she believes that sufficient numbers of students have started to use drugs or alcohol for the evaluation to measure changes in use.

The committee wants to measure the knowledge, attitudes, and behavior of 10th-grade students in the fall, before "Way to Go" instruction, and again in the late spring (after "Way to Go" instruction). The committee notes that because few students move out of the district between 10th and 11th grades, it may also be possible to track the 10th-grade students over time. Most of the 10th graders will also participate in the statewide prevalence survey that will be administered to 11th-graders the following year. The Wood County 11th-grade results on the prevalence survey will allow the evaluators to measure longer-term program effects.

The committee decides that only an evaluation with a comparison group will be sufficiently rigorous to identify program effects. Because all Wood County students will be exposed to the "Way to Go" curriculum at the same time, neither random assignment nor staggered services are feasible designs. Several committee members know the staff at a neighboring high school that draws its students from roughly the same ethnic and income groups. Those members form a subcommittee to approach the other school district about participating in the evaluation, using its 10th grade students as a comparison group.

At this point, then, the Wood County evaluation committee has identified three separate data collection efforts:

- A pretest/posttest survey of teachers;
- A review of disciplinary records; and
- A pretest/posttest survey of participants and nonparticipants in "Way to Go" instruction,

with the state prevalence survey as an additional posttest. The use of multiple methods increases the likelihood that useful information will be obtained. It also allows the evaluators to compare the results of the different inquiries.

## Who Should Be Surveyed?

If a drug education program is adopted district-wide and the district has 5,000 students, surveying all of those students to identify changes in knowledge or behavior could be quite expensive. The addition of a comparison group could increase costs even further. Rather than polling everyone, it may be possible to select a smaller number of individuals and to survey them with some assurance that the results will be applicable to district or comparison students as a whole. Selecting that smaller number of individuals is called sampling. Here is an example from another field that helps to explain sampling.

The owner of a grocery store finds an unopened box in the back room with a label that says "48 cans, 16 ounces each...." The rest of the label is obliterated. He opens the box and sees that it is filled with cans. He takes out one of the cans and reads the label: It is a 16-ounce can of tomatoes. How reasonable would it be to assume that the other 47 cans are also full of tomatoes? He is a skeptic (a good quality for an evaluator), so he pulls out three additional cans from different parts of the box and finds that they are all 16-ounce cans of tomatoes. His confidence that he has opened a box containing 48 16-ounce cans of tomatoes has increased considerably.

**Sampling is a way to be reasonably convinced of the characteristics of a larger population based on looking at a subgroup of that population.**

The process used to arrive at this conclusion is sampling. It is a way to be reasonably convinced of the characteristics of a larger population based on looking at a subgroup of that population. Sampling can save a great deal of time and effort in conducting an evaluation while still providing accurate results that are representative of a larger population. Here are five factors to keep in mind when deciding how to create (or "draw") a sample. The factors affect how many things/persons should be sampled.

## General Sampling Considerations

1. **Prior knowledge of the condition being observed.** (What if the grocer's box had no label at all and had already been opened?)

   The less that is known about what/who is being studied, the higher the number needed in the sample.

2. **The number of things/persons from which to sample.** (What if there had been a "population" of only two cans in the box?)

   The larger the number of things/people in the overall population from which the sample is drawn, the higher the number that should be sampled.

3. **The variability of the things/persons to be sampled.** (What should the grocer have done if the box had said "assorted" or if the second can had contained corn?)

   The more variability likely to occur in the population being studied, the higher the number that should be sampled. If there is a great deal of variability, a large sample may be required.

4. **The importance of the decisions that will be made based on the information obtained.** (What if the example had involved unpacking bottles of vaccine for a childrens' clinic rather than tomatoes?)

   The greater the degree of confidence in results that is required, the higher the number that should be sampled.

5. **The reliability of the measures being used.** (What if the labels on the cans had been partially obscured?)

   The more reliable the measure being used, the smaller the necessary sample size.

Sample size will depend on all of these factors. Arriving at the correct sample size is a technical process. An evaluation specialist can help in drawing up sampling plans.

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**The Wood County evaluation committee decides to survey only 10th graders to keep costs low. The committee also could have used sampling and expanded the number of grade levels in the evaluation. This possibility was considered, and rejected, because the committee reasoned that the costs of hiring a sampling expert and the difficulty of polling only a small number of students at each grade level would be greater than the costs of polling all 10th graders. Of course, each evaluation committee will have to reach its own conclusions.**

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### Protecting Human Subjects and Maintaining Confidentiality

**Informed consent.** Collecting data from human subjects is a delicate matter, especially when data collection involves minors. Organizations that use Federal funds to collect information directly from children must obtain parental consent. Each situation will differ, however, with respect to state laws and the policies of the district or organization conducting the program. There will be differences in whose consent is sought depending on whether the evaluation is using extant records, interviewing minors, or sending a questionnaire to parents.

Under all circumstances, it is important to ensure that written informed consent is obtained from the appropriate source. Informed consent ensures that a person is aware of (informed of) what is being collected and gives his or her permission to be part of the data collection (gives consent). Notification must be given in a language that he or she understands. Additional information on informed consent is available from district or state agencies. Local school program officials should become familiar with the consent policies of their districts.

*Evaluations conducted by district or agency officials that use students' records—cumulative or attendance records, for example—usually do not require the written consent of parents.* Nonetheless, it must be established that there was informed consent for placing the information in the files and that the evaluator has complied with all agency or district policies for obtaining and using the data.

**Anonymity and confidentiality.** In examining the effects of programs aimed at preventing substance abuse, it is often necessary to ask for very personal information. That information is often requested primarily to understand the impact of a program and only secondarily (if at all) to assist the individuals being surveyed. Individuals are likely to be concerned about revealing information that could prove embarrassing or place them at legal risk. At the same time, there may be little individual benefit to providing sensitive information. It is necessary to reach a balance between the risks to these research subjects and the benefits derived from the evaluation.

What risks to subjects can arise in evaluating a program? First, there is the risk that damaging information about an individual may become known to project staff or even made public. There is the risk that information that was supposed to be held in confidence may be used in ways that hurt individuals or groups of respondents. There is also the risk that some respondents may react poorly to questioning or, for other reasons, the evaluation itself causes harm or may even undo project objectives. These risks are small but real, and evaluators should take steps to address them during the design phase.

The best way to protect evaluation subjects is to ensure them ***anonymity.*** That is the case when the evaluators obtain no identifying information during data collection or expunge all identifying information from any records or other materials they acquire. This approach has the added benefit of decreasing the likelihood that respondents will give inaccurate answers because they think the information they are providing could be traced to



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them. However, ensuring anonymity prevents the evaluator from linking different sources of evaluation information (e.g., linking questionnaires administered to students before and after an intervention, or linking student responses with parent questionnaires and student records).

From the evaluator's standpoint it is better to promise ***confidentiality.*** This means that each respondent is assigned a number that is used in data collection. A very small number of persons have access to the list that links respondent names and numbers, and that list is destroyed when the evaluation is completed. It may be destroyed as soon as data collection is completed if no individual follow-up is planned. The number does not need to be included on data collection instruments but it must be linked by the evaluator to any numbers that do appear on questionnaires or other instruments. In this way, the respondent is ensured that his or her identity will be known to only a very few persons. This approach provides less individual protection than does anonymity but it gives the evaluator the important ability to link data.

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**Recognizing the sensitive nature of the inquiry, the Wood County evaluation committee decides to send a letter to the parents of all 10th-grade students at the start of the school year. The letter will describe the new drug prevention program, the evaluation design, and the range of persons and groups involved in the evaluation. It will ask parents to indicate whether they consent to their children's participation in the evaluation. Because the evaluation committee plans to review the district's records on suspensions, expulsions, and referrals, as well as to administer questionnaires that ask for sensitive information, the committee decides to limit, as much as possible, the number of persons who will conduct these data collections. Each person who will have access to confidential information will sign a form indicating that he or she will maintain the confidentiality of the records and will disclose no information on any individual. Because the evaluation committee wishes to link student questionnaires and teacher data, questionnaires will promise confidentiality to respondents, not anonymity.**

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The rest of this chapter outlines key data collection, analysis, and reporting activities. The Wood County approach to these activities will be discussed in Chapter 3.

## Data Collection Methods and Instruments

With the research questions identified, the design and sampling issues considered, and the means to ensure informed consent and confidentiality outlined, the discussion turns to the methods for collecting data. Among the data collection options available for carrying out an evaluation—reviewing existing records, observing services, conducting open-ended interviews, and administering written questionnaires—written questionnaires are one of the most common and least expensive methods to collect information. At their best, questionnaires provide an efficient, convenient means to produce systematic, measurable information about how a program is operating or affecting clients. When confidentiality is assured, self-administered, written questionnaires are probably a good means of collecting information relatively inexpensively.

**When confidentiality is assured, self-administered, written questionnaires are probably a good means of collecting information relatively inexpensively.**

### Selecting Questionnaires

Most school systems and community agencies do not have the resources to develop new, perfectly tailored questionnaires. Instead, evaluators often select all or parts of existing questionnaires that have already been tested, used elsewhere, and found to collect accurate information.[2] The advantages of using such instruments are considerable. Resources need not be spent designing new forms, and existing questionnaires often have procedures included for recording the information so that it can be collated or aggregated. As already noted, using questionnaires employed in national or regional surveys can sometimes also allow local evaluators to compare their results with national or regional results.

Of course, the use of pre-existing instruments also has disadvantages. It can be a long, frustrating process to find appropriate questionnaires. When items are drawn from several different instruments, they may not fit together easily. Or it may be necessary to change parts of questionnaires to adapt them to local needs. Merging or changing items may, however, alter or reduce the evaluator's level of confidence that those items are collecting accurate information. To begin the search for questionnaires, several compendia



[2]The accuracy issue is discussed further in the following section on validity and reliability.

of alcohol and drug questionnaires are identified in the appendix. They address different topics and offer different emphases (including measures of drug-related behavior and habits, level of knowledge about drugs, attitudes about drug use, and related topics). When examining drug-related behavior, it is helpful to use existing questionnaires if at all possible. In addition to saving resources and ensuring a reasonable degree of accuracy, they offer comparability between populations and over time. Designing an entirely new questionnaire is best suited to testing a unique component of a program.

### Designing Questionnaires

Whether choosing a pre-existing questionnaire, collating one that is partly or wholly adapted from others, or creating a new one, here are some tips to ensure that the product is of high quality. Whatever approach is chosen, the evaluator should ensure that:

- **The items in the questionnaire reflect the program's specific aims.** For example, what changes in participant behavior might be expected to occur as a consequence of the program? What are the best indicators that teachers are implementing a curriculum? The questions should measure what the program is designed to achieve.

- **The questions, language, and reading level are appropriate to the respondents.** The flow of the questionnaire and the ease of responding should be assessed. For example, the questions should not ask young children about issues they are unlikely to comprehend or about behavioral expectations well beyond their stage of development.

- **Wording biases have been eliminated.** If the wording of questions leads respondents to guess the desired answer, nothing will be learned from the questionnaire.

- **Questions are direct and focused,** not indirect or open ended. Yes/no or simple 5-point scales (such as "strongly agree" to "strongly disagree" with a particular statement) should be used when possible.

- **The response format matches the question format.** A question that asks "How many times in the last month..." should have response choices tailored to that question.

- **Coding requirements are incorporated into the instrument.** The person who will be responsible for coding should review the instrument to make sure it will be easy to code and aggregate the information.

- **Items from widely used instruments are not changed** unless there is a good reason. In addition to issues of accuracy, comparability of findings with other evaluations or national trends could turn out to be of critical importance. Each item change should be weighed carefully.

- **The instrument is sensitive to response burden**—the number of minutes it will take a respondent to fill it out—and to the burden on evaluator time. A long, poorly thought out questionnaire will waste respondent and staff time.

## Administering Questionnaires

Before a questionnaire is administered as part of an assessment, it is important to try the items with a small number of people; this is commonly called a ***pilot test.*** A pilot test helps to ensure that the questions are understandable and answerable and that the time needed to complete the questionnaire is not excessive. The pilot test should be conducted, under similar conditions, by the persons who will administer the actual questionnaire. Respondents should be similar to the actual respondents but not persons likely to participate in the true questionnaire administration. The pilot test could be administered, for example, to a group of students in a neighboring school or district. In most cases, a dozen or fewer pilot test respondents will be enough to know how well the questionnaire works. When the administration is over, the respondents should be asked for their opinions of the instrument. After the pilot test, some redrafting of the questionnaire may be necessary.

With respect to the setting for actual administration, questionnaires administered in person or over the telephone tend to produce higher response rates than those administered by mail, when evaluators are dependent on subjects to mail in their responses. But when a large number of people are being polled, and they cannot be brought together easily, a mail questionnaire may be more cost effective. And some evaluators have argued that telephone interviews may not be as effective a method when sensitive information is being sought and the respondent knows the identity of the interviewer or the group conducting the survey.

There are a number of other points to keep in mind as well. First, time and resources must be available to follow up nonrespondents to ensure a high response rate. Computer service staff should be enlisted to help design forms. The evaluators should identify as many costs as can be anticipated at the outset, including copying, collating, postage, etc., and try to keep the questionnaire as simple as possible, given the resources. As noted previously, pre-coded identification numbers help assure confidentiality. For a

written questionnaire administered in person, the evaluator might consider giving each respondent an envelope for the completed survey and providing a box where sealed envelopes can be placed. If at all possible, someone other than a familiar classroom teacher or program leader should administer the survey to participants (and refrain from watching respondents as they fill it out). This procedure will help to eliminate inaccurate responses.

### Using Data from Records

Data gathered from ongoing recordkeeping can be a very useful and inexpensive source of information for program evaluation. Examples include school records of attendance, grades, referrals, and disciplinary actions. Community agencies may have access to police or hospital emergency room records. Such records can be especially valuable when combined with the results of new data collection. Student self-reports on achievement can be compared with school cumulative records, for example, to establish whether the direction of change is the same for both sources. Sometimes new recordkeeping is established by the evaluators solely for the purposes of the assessment.

Programs with intensive direct services to a subset of students or a group of clients are likely to employ case management or other individual data files. When standardized forms are used to record information about individuals, they can also yield information to monitor and evaluate program operations. For example, a community-based counseling program with a file on each child that includes items such as gender, age, parents' education, family income, and services rendered could be used to retrieve information on how much of a given service the program provided and how many people were served, or to assess whether the goal of serving children from low-income families was accomplished. The records also might yield information such as the average amount of service provided to each client or the average caseload for each staff member. Case records of this type are more likely to be available in community agencies than in schools.

Since records data are usually collected for purposes other than evaluation, their accuracy must be determined. Also, recordkeeping procedures may change over time, producing inconsistencies in the data. It is important for evaluators to assess and understand the limits of records data, but with these cautions in mind, they should take advantage of opportunities to use records reviews in combination with new data collections whenever possible. If multiple data sources show decreased drug use over time, for example,

confidence in the results may be strengthened. It is critical, however, to understand the policies and procedures that have influenced the quality of the data being used.

Many agencies and school districts require a formal application process for obtaining information from individual records. When seeking access to these data, the evaluator must be very specific in describing the information needed and how it will be used. He or she should be prepared to work collaboratively with the district or agency to obtain the data in the least intrusive manner and to protect confidential material.

### Ensuring That Evaluations Yield Valid and Reliable Findings

Whatever methods are used, the data collected must meet two conditions to be considered accurate: they must be valid and reliable. In examining sensitive issues such as drug or alcohol use among youth, designing data collection instruments and methods that yield valid, reliable findings is a very serious concern. Respondents may be tempted to answer questions in ways that they think are expected of them or that do not place them in jeopardy. Evaluators will want to take steps to ensure that they have obtained the most accurate (i.e., valid and reliable ) responses they can get.

> ***A data collection item (such as a question on a questionnaire) is valid to the degree that it actually measures what it claims to measure.***

For example, a pencil and paper questionnaire on drug use is administered to a court-referred group of drug users obtaining counseling. Less than 5 percent of the respondents indicate any drug use in the past year. The validity of this instrument would be highly questionable. Or a middle school invites a police officer to a health education class to present information that will discourage students from using marijuana. At the end of the session, the officer asks the participants, "Will you smoke marijuana?" It is likely that just about everyone will say "no." If everyone says "no" in this public manner, little if anything has been learned about these children's attitudes toward future marijuana use. There is no validity to this procedure. A better procedure might be to wait a few weeks and then administer a short, confidential questionnaire asking about the possibility of future use.

***A measure is reliable to the degree that its meaning is stable. A reliable item or set of items on a questionnaire would lead to similar responses by the same respondent (in an unchanging situation) each time the item was asked.***

Reliability is an assurance that the instrument or measure is consistent. One of the simplest tests of reliability is whether the same questionnaire, administered to the same person twice in a short period of time, yields similar responses. If this does not happen, the questionnaire probably contains unreliable items. Consistent responses suggest reliability, and consistent responses to different items that seek to measure the same knowledge or behavior provide greater confidence that the questionnaire is reliable.

Can a measure be reliable but invalid? Yes, because reliable but invalid responses can be obtained consistently if a data collection instrument or procedure is poor. An evaluator administers an instrument that asks about current drug use to the same set of students twice, a month apart. The students give the same answers both times, so the questionnaire appears to be reliable. But the evaluator asks the students to sign their names to the questionnaires, so the students assume that if they reveal any drug use they will be disciplined. Hence, reliability is achieved because drug use rates at both administrations are consistently low. So the measure is very reliable, but still invalid.

***A measure must be both valid and reliable to be useful.*** Establishing the validity and reliability of data collection methods and items is a technical area in which school staff may wish to obtain outside assistance. The use of validated existing questionnaires is a good way to minimize validity and reliability problems, provided they are used in a manner similar to the way in which they were used when their reliability and validity were established.

## Interpreting and Reporting Evaluation Findings

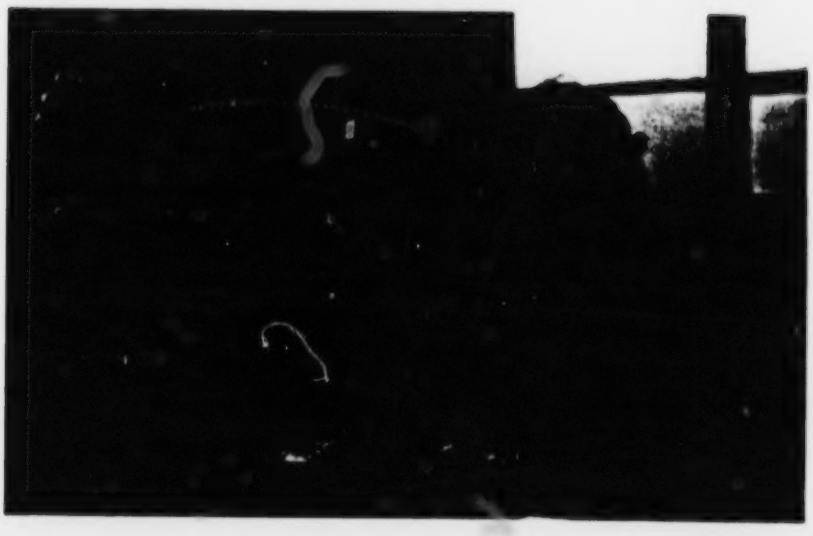
### Drafting an Analysis Plan

An analysis plan links the evaluation questions with the data collection and spells out the analyses that will be conducted when data become available. It should be written in conjunction with the drafting of data collection instruments rather than afterward. If the analysis plan is written too late, key questions may not be asked or may be phrased in unfortunate ways, or critical information from other sources may be overlooked.

As questionnaire items are prepared or data entry forms developed, the analysis plan links these data collection elements to the analyses that will be conducted. For example, the plan might say: "Because the district wants to know whether the program is effective for 10th-grade students, the analysis will focus on whether attending a greater number of class sessions is associated with reduced alcohol use. Items X and Y on the student questionnaire will measure alcohol use (before and after the intervention), while teacher attendance logs will be used to determine the number of drug prevention sessions a student attended." The analysis plan can also identify the specific range of answers that will be solicited (e.g., for a question about alcohol use the range might be "never," "once or twice in lifetime," and "a few times a year," if very little use is expected). If items are specified in detail, and analyses are linked before instruments are completed, it will avoid disappointment later. ("If only we had asked about monthly or daily alcohol use, we could have learned more about actual use rates and related them to program exposure.")

**An analysis plan links the evaluation questions with the data collection and spells out the analyses that will be conducted when data become available.**

Development of the analysis plan is a point at which the help of an evaluation specialist can prove useful. A specialist from within or outside the district or agency can review the plan and the data collection items, to make sure that the evaluation questions are capable of being measured, that the data collection instruments will yield data that can be used to answer the questions, and that the planned analyses will use those data properly. He or she can raise questions about whether a "yes" answer to teacher questionnaire item 8 and a "3" answer to student questionnaire item 10 will allow the evaluation to conclude that students were more likely to refrain from using alcohol when teachers emphasized the refusal skills approach. The specialist can help the evaluators to develop ways of characterizing programmatic differences across staff or institutions. Showing these differences may be critical to understanding both program implementation and participant outcomes.



## Analyzing Evaluation Findings

Once data collection is completed, the process of data analysis begins and the effects of the program emerge. A basic tool for analyzing data is ***descriptive*** analysis. Descriptive analysis may be as simple as summing or averaging results: How many 10th-grade students report that they know someone who uses marijuana? What percentage of 10th graders report drinking alcohol twice a week or more? What was the mean score of participating students on the drug knowledge items? What was the mean score of the comparison group?

In a process evaluation, statistics will likely be relatively straightforward: for example, the number of persons served with this program in place (possibly compared with the number of persons served before this program was in place), the number of instructional hours, the number of counselor contact hours or individual sessions, the number of staff trained, etc. Descriptive information should be presented objectively, in quantitative terms where possible.

Descriptive analysis also extends to characterizing the relationships between different measurable aspects of the program. By examining relationships using statistical tools as well as common sense, it may be possible to show, for example, whether attending in-service training sessions is associated with a greater likelihood that teachers adopt a new curriculum, or whether teachers who believe that the school has a serious drug problem refer more students for treatment. Carrying out this type of descriptive analysis requires





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crosstabulations, correlations, and other statistical techniques designed to depict relationships between variables. These techniques cannot establish causality, however.

Analysis can also be ***inferential*** in nature. In an outcome or impact evaluation, there are a variety of questions about effects of a treatment on an observed result. A simple inferential analysis might seek to determine whether observed differences in outcomes between treatment and comparison groups are statistically significant, or whether it is likely that they could occur by chance. A more complex question might be whether differences between treatment and comparison groups are significant when the background or previous drug education of the two groups are taken into account (i.e., "held constant"). The help of a statistician or evaluation specialist may be needed to carry out this type of analysis.

Evaluators are also called upon to ***interpret*** data. For example, even if a statistically significant difference between groups is observed, is that difference meaningful in a practical sense? What does it tell program personnel that can help them to improve the program? Let's say that among 10th-grade students whose health teachers indicated that they implemented a new curriculum in its entirety, 3 percent were suspended or expelled during the evaluation year. By contrast, 5 percent of the 10th graders who were not taught these skills were suspended during the same time period. While a statistical test shows that the difference between the suspension rates of the two groups is statistically significant (i.e., the difference is not likely to have occurred randomly), **is that difference meaningful in a practical sense?** Is the difference sufficient to continue the program in its present form, or should the staff make changes? Should every high school student in the district receive the new program if substantial additional teacher training costs will be incurred?

A final word on data analysis: Evaluators should not be discouraged by findings indicating that a program demonstrated few effects on participant behavior. It is difficult to evaluate a program that involves such a complex, sensitive issue as drug use. It is particularly hard because behavioral changes may occur for only small percentages of participants or changes may be difficult to measure. Programs that are new, or that are recently adopted, may not be sufficiently developed or implemented to show behavioral effects. One way to avoid disappointment is to make sure that the evaluation questions address changes that could reasonably have been expected to occur in the time frame under examination.

**Programs that are new, or that are recently adopted, may not be sufficiently developed or implemented to show behavioral effects.**

## Reporting Evaluation Findings

Once the findings are in, evaluators need to develop strategies to report the results. ***The form of the report depends on the audience.*** There may be several audiences for a program evaluation, each requiring different information or a customized presentation format. An in-house evaluation conducted to improve a program's implementation will lead to a report that is very different from that required in an "accountability" evaluation conducted for a funding source or the school board. A report intended for media use will be different still; it may, in fact, be a press release.

While most evaluations include a detailed written report, this approach is not always necessary or appropriate. Verbal presentations with supporting tables, graphs, and charts—or case studies and targeted qualitative results—may be enough for some needs. But most evaluations will call for a report summarizing the goals and history of the program, methods of evaluation, findings, interpretations, conclusions, and recommendations.

It is important to review the results with colleagues and program staff before completing an evaluation report. This review can be accomplished by circulating an interim or draft report and holding a meeting to discuss it together. The evaluator will gain additional perspective on the meaning of the data from the reviewers before he or she writes the final draft. For example, colleagues can discuss and interpret puzzling findings. Perhaps participants reported increased use of drugs after the treatment but less intention to use drugs in the future. Discussions with staff can bring out new perspectives on the meaning of these findings, perspectives that can be included in the final document.

It is also a good idea to brief important political actors before a report is released publicly. The briefing gives district or agency officials or other policymakers some time to digest the findings and to think about the policy implications. It may also provide them with an opportunity to prepare a response if they so desire. Through this process, evaluators will also learn what appear to be the most important findings from the perspective of the groups that will use them.

The final report can be written as a short summary document with a technical appendix. Most busy audiences look for brevity and clarity. In summarizing findings, the evaluators should not be afraid of appearing too elementary. Those who want more statistical or other detail can find it in the back-up technical report. Evaluators or program staff may also be called upon to make oral presentations before various groups. Speakers should prepare a set of perhaps half a dozen simple summary graphics (charts and tables) on

the most important findings to show on an overhead projector and to distribute. They can also prepare copies of a summary sheet of results to give to the audience.

> **Whether oral or written, the report should begin by pointing out why the evaluation was conducted and asked the questions it did. It should state the purposes of the program and how it was developed or selected for the school or agency. The report should indicate what the board, staff, or others wanted to learn from the evaluation and why, and explain the methods and the procedures undertaken to collect and analyze data. The evaluator should share the highlights of the results and describe what the findings imply for program maintenance, expansion, redirection, funding, etc., as appropriate. The report may also advance recommendations for future steps, short- and longer-term actions that can be taken to improve the program further.**

It is crucial to report evaluation findings objectively. Most evaluations have both positive and negative findings as well as findings about which the evaluator is less than fully certain. Most studies have methodological and other limitations that constrain the ability of the evaluators to reach definitive conclusions. Evaluations also encounter external events that impede the data collection or analysis. These circumstances need to be discussed fully and honestly, so that audiences can judge the degree of confidence to place in the results. A good scientist works hard to discredit his or her own findings.

Finally, the report should not portray the results as the final word on the program but should present the evaluation results as part of a cumulative and evolving process. Evaluation data represent one kind of input into decisionmaking, but there are other sources of information as well. And the evaluation is ultimately a device for program staff to make adjustments, to improve their effectiveness. The change process will probably continue.

Now that the major parts of an evaluation have been identified, the experience of the Wood County School District is used to illustrate how to conduct data collection and analysis.

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Chapter 2 presented the overall design for the Wood County evaluation. This chapter provides a detailed discussion of the data gathering and analysis activities carried out in Wood County. These activities are typical in carrying out most evaluations of program implementation or outcomes.

## Establishing That Implementation Took Place

In Wood County, the first order of business is to determine whether the new curriculum has been implemented. The evaluation committee plans to find out:

- Whether staff received training;
- Whether teachers who received training appeared likely to use the new program;
- Whether teachers who received training implemented the program; and
- Whether the new disciplinary policy was enforced.

The evaluation committee wants to obtain this information using procedures that are easy to conduct, reflect good evaluation practice, and are as unobtrusive as possible. They want to use data collection instruments that yield valid and reliable data. As a result, they review published evaluations and evaluation guides, seeking to determine how other implementation assessments have been conducted.

The committee soon discovers, however, that formal guides for studying the ***implementation*** of drug education programs are scarce. The few available guides prove inappropriate to Wood County, because the "Way to Go" program uses a teacher training and classroom approach different from that of other programs whose implementation has been systematically studied.

The committee finds that questionnaires or other data collection instruments used in process evaluations can rarely be applied across programs. Unlike the measurement of program outcomes, the measurement of program implementation tends to be developed entirely "from scratch," or by cobbling together new components with some items drawn from other evaluations. With the help of Ms. Brown, however, the committee draws up the following implementation data collection strategy.

## Implementation Question #1: Did Staff Receive Training?

To establish which staff received training, the evaluation committee decides to record teacher attendance at the week-long training session held during August. During each day, teachers are asked to sign their names on a preprinted sheet. Since the "Way to Go" training is taught by several different instructors, Ms. Brown makes sure that each instructor is aware of the need to pass around the sheet once a day. Preprinting the list of names in alphabetical order will simplify the entry of results into the computer. A member of the evaluation committee collects the forms from the training instructors at the end of each day of training. At the end of the week, the evaluators are able to tell which teachers attended the full week and which missed 1 or more days.

"Way to Go" Staff Training
Attendance Sheet: Session 1 8/15/92

Please sign your name in the appropriate space.

| | |
|---|---|
| Amy Adams | _____ |
| Perry Black | _____ |
| Elizabeth Edwards | _____ |
| Eve Goodman | _____ |
| Kristy Jordan | _____ |
| Paul Kee | _____ |
| Patrick McCarthy | _____ |
| Louise Martino | _____ |
| William Moore | _____ |
| Melissa Nelson | _____ |
| Sylvia Rodriguez | _____ |
| Ray Sanchez | _____ |
| Eugene Simpson | _____ |
| Michael Wood | _____ |

## Implementation Question #2: Did Staff Appear Likely to Implement "Way to Go"?

To determine the immediate outcomes of the training for participants, the evaluation committee decides to administer a short questionnaire to participants. The initial plan is to rely on the "Way to Go" developers' training participant questionnaire, which the developers use to assess the training sessions. It asks participants about the usefulness and quality of the training they receive from each instructor, using a 5-point scale. The committee learns that the developers pass out multiple forms to each participant on the first day of training, and participants are asked to complete one form, anonymously, each day. A box for completed forms is posted at the back of the room.

The committee considers using this questionnaire:

Developers' "Way to Go" Daily Evaluation Form

Please indicate whether you agree or disagree with each of the following statements by placing an "X" in the appropriate box.

| | Agree strongly | Agree | Neither agree nor Agree | Disagree | Disagree strongly |
|---|---|---|---|---|---|
| The information was presented clearly. | | | | | |
| The information was provided at the appropriate level of detail. | | | | | |
| The instructor held my interest throughout. | | | | | |
| The written materials were easy to understand. | | | | | |

Any other comments? _____

_____

The developers indicate that the form has proven useful to them in evaluating staff reactions to training, but they can provide no specific information about response rates or the reliability of individual items. They offer to share the results with the evaluation committee. At first, the committee believes the developers' form (reproduced above) is sufficient for its purposes.

After further review, however, the committee decides that the developers' form does not capture the kinds of information it seeks. Specifically, the committee wants to find out how likely each trainee is to use the "Way to Go" program. While the committee is interested in the quality of in-service instruction, it is more interested in the teachers' comfort with the new program and their initial willingness to implement its components. Even though the "Way to Go" program has been mandated by the school board, committee members know that not all teachers will implement the program to the same degree. Further, it will be critical for the evaluators to know the identity of each respondent so that information on teachers' likelihood of implementation can be matched with attendance at training and, later, with their actual levels of implementation and their students' outcomes.

In the end, the committee draws up its own set of short items (reproduced on the next page). It avoids putting teachers on the spot by asking them a yes-or-no question about whether they plan to implement "Way to Go." While short, this set of items will give the evaluators a preliminary idea of the context in which teachers are adopting the "Way to Go" program. Rather than a formal pretest, Ms. Brown tries out the questionnaire with a small group of teachers from another school who are receiving "Way to Go" training in a different site. They make a few suggestions, and Ms. Brown is able to estimate that the questionnaire will take no longer than 10 minutes to complete.

After approving the content, the committee is divided on when to administer the questionnaire. Several members feel that it would be best to administer the questionnaire at the end of the final day of training, to ensure a high response rate. Other committee members point out that the participants will have to complete several "Way to Go" developer questionnaires during training and may resent the additional work. Further, if the teachers fill out the questionnaire in a group setting, they may feel inhibited about answering honestly. One member notes that it might be a good idea to let some time elapse after the training before asking teachers how they plan to use the curriculum. After all, at least several weeks will elapse before teachers actually begin to implement the program.

The committee drafts the following questionnaire:

Wood County School District

Teacher Questionnaire (Pretest)

Please indicate whether you agree or disagree with each of the following statements by placing an "X" in the appropriate box.

| | Agree strongly | Agree | Neither agree nor Agree | Disagree | Disagree strongly |
|---|---|---|---|---|---|
| 1. I feel confident that I can implement the "Way to Go" program in my classes. | | | | | |
| 2. I could use additional help in implementing the "Way to Go" program. | | | | | |
| 3. Although important, implementing "Way to Go" will take time from more important topics. | | | | | |
| 4. Most of the students at my school have used alcohol during the past month. | | | | | |
| 5. Very few of the students at my school have ever tried marijuana. | | | | | |

I estimate that carrying out the "Way to Go" program in 10th-grade classes will require the following number of 50-minute sessions (circle your best estimate):

1-3, 4-6, 7-9, 10-12, 13-15, 16-18, more than 18.

Please indicate any other reactions to the "Way to Go" training or other comments here:

_____

_____

_____

_____

_____

Form Approved by Wood County School District Evaluation Committee

After considerable discussion, the committee decides to administer the questionnaire at the beginning of the fall semester, 3 weeks after training ends. The evaluation committee decides that the benefits of in-person administration (higher response rate, uniformity in data collection point) are outweighed by the liabilities (teachers might give less valid answers). At the same time, later mail administration has its own advantages (the teachers will have had a chance to assimilate—or forget—training information, and confidentiality of response may be greater). The committee is aware, however, that obtaining a high response rate will require greater effort.

A number of procedures are introduced to ensure the confidentiality of responses and to relieve teacher anxieties. First, Ms. Brown and the secretary, who will enter the teacher data in the computer, sign a statement pledging to maintain the confidentiality of teacher responses. The form they signed is displayed on the next page. Using the attendance sheets from the training, Ms. Brown identifies appropriate teachers with 10th-grade classes and assigns a random three-digit number to each teacher name. (The reader will recall that the evaluation committee decided earlier to focus the evaluation on 10th-grade students.) Ms. Brown creates a master list and then enters the three-digit codes on the blank questionnaires.

There are other ways of ensuring confidentiality and decreasing respondent anxiety. If Wood County had engaged an outside evaluator, that person could have distributed the questionnaires either at the training or by mail, indicating that no one in the school system would know how any teacher had responded. Unfortunately, Ms. Brown cannot make that claim since she is a school district official.

The survey is administered by internal mail during the first week of school. In their mail boxes at school, all appropriate teachers receive a personal cover letter from Ms. Brown, a precoded questionnaire, and a return envelope with Ms. Brown's name on it. The teachers are asked to fill out the questionnaire and return it within 1 week.

Ms. Brown and her secretary sign this statement:

**ASSURANCE OF CONFIDENTIALITY OF SURVEY DATA**

**Statement of Policy**

The Wood County School District is firmly committed to the principle that the confidentiality of individual data obtained through surveys must be protected. This principle holds whether or not any specific guarantee of confidentiality was given at time of interview (or self-response), or whether or not there are specific contractual obligations. When guarantees have been given, they may impose additional requirements that are to be strictly observed.

**Procedures for Maintaining Confidentiality**

1. All employees involved in surveys or evaluations shall sign this assurance of confidentiality.

2. Employees shall keep completely confidential the names of respondents, all information or opinions collected in the course of interviews, and any information about respondents learned incidentally during data collection. Employees shall exercise reasonable caution to prevent access by others to survey data in their possession.

3. Survey data containing personal identifiers shall be kept in a locked container or a locked room when not being used each working day in routine survey activities. Reasonable caution shall be exercised in limiting access to survey data to only those persons who are working on the specific project and who have been instructed in the applicable confidentiality requirements for that project.

4. Ordinarily, serial numbers shall be assigned to respondents prior to creating a machine-processible record and identifiers such as name, address, and Social Security number shall not, ordinarily, be a part of the machine record. When identifiers are part of the machine data record, Wood County School District's manager of data processing shall be responsible for determining adequate confidentiality measures in consultation with the evaluation director. When a separate file is set up containing identifiers or linkage information that could be used to identify data records, this separate file shall be kept locked up when not actually being used each day in routine survey activities.

5. When records with identifiers are to be transmitted to another party, such as for keypunching or key taping, the other party shall be informed of these procedures and shall sign an assurance of confidentiality form.

6. At the end of the period of performance, the evaluation director shall arrange for proper storage or disposition of survey data, including any particular requirements for storage or disposition.

PLEDGE

I hereby certify that I have carefully read and will cooperate fully with the above procedures. I will keep completely confidential all information arising from surveys concerning individual respondents to which I gain access. I will not discuss, disclose, disseminate, or provide access to survey data and identifiers except as authorized. I will devote my best efforts to ensure that there is compliance with the required procedures by personnel whom I supervise. I understand that violation of this pledge is sufficient grounds for disciplinary action, including dismissal. I also understand that violation of the privacy rights of individuals through such unauthorized discussion, disclosure, dissemination, or access may make me subject to criminal or civil penalties. I give my personal pledge that I shall abide by this assurance of confidentiality.

_____
Signature

Form Approved by Wood County School District Evaluation Committee

This cover letter accompanies the teacher questionnaire:

**Wood County School District**
**"Knowledge is the Key to Tomorrow"**

1650 Administration Blvd. Woodville, US 00000 (555) 555-5555

September 1, 1992

Dear Mr. McCarthy,

This year, the Wood County School District will be evaluating the effectiveness of the new "Way to Go" drug prevention program. An evaluation committee with representatives of teachers, parents, administrators, and students is designing and carrying out the evaluation. To help implement the evaluation, we would like to get your views about the "Way to Go" in-service training you may have received in August and your plans for using the program. We would appreciate it if you could take a few minutes to fill out the enclosed short questionnaire. Please fill out the questionnaire even if you did not attend the in-service training.

All responses to this questionnaire will be kept strictly confidential. Only my secretary and I will know the identities of respondents, and we have signed a statement outlining our responsibility to maintain confidentiality.

Would you please complete and return the questionnaire within one week. When you have completed the items, please use the enclosed pre-addressed envelope to return it through the internal mail. Feel free to call me at (555) 555-5555 if you have any questions. Your help in carrying out the evaluation is greatly appreciated.

Thank you very much.

Sincerely,

Ellie Brown

Ellie Brown
Drug Program Coordinator
Wood County Schools

Enc.

About half of the teachers fail to return their questionnaires within 2 weeks (a common nonresponse rate for a mail questionnaire). To increase the response rate, the secretary calls teachers to remind them to send in the questionnaire (and sends them another form if they have lost the first). Teachers who still fail to respond are called again and asked to respond to the information over the telephone (or they may be asked to make an appointment for a convenient time for a future telephone call to report the information). Any teacher who refuses to respond is called by Ms. Brown in a last-ditch effort to obtain cooperation.

## Implementation Question #3: Did Teachers Implement "Way to Go"?

To find out whether teachers do, in fact, implement the "Way to Go" program, they are asked about actual implementation toward the end of the school year. Once again, it is necessary to administer the questionnaire to teachers with 10th-grade classes in health, physical education, and science to fulfill the requirements of the evaluation, regardless of whether they attended training. (District officials might decide to distribute the questionnaire more widely to find out about overall teacher implementation.)

Items on the posttest are drafted to reflect those on the pretest, but they are more heavily focused on actual implementation. A sample of the posttest questionnaire appears on the following page.

Obtaining a high teacher-response rate on the posttest is critical because it will be almost impossible to conduct the student-level analysis without knowing whether their teachers implemented the program. The committee decides to use the same administration procedure as for the pretest, but it instructs Ms. Brown to conduct an aggressive telephone follow-up to make sure that every appropriate 10th-grade teacher is included.[3]

[3] An alternative to teacher estimates of class sessions devoted to "Way to Go" might have been an ongoing teacher recordkeeping system.

The teacher posttest is administered at the end of the year.

Wood County School District

Teacher Questionnaire (Posttest)

Please indicate whether you agree or disagree with each of the following statements by placing an "X" in the appropriate box.

| | Agree strongly | Agree | Neither agree nor Agree | Disagree | Disagree strongly |
|---|---|---|---|---|---|
| 1. I felt confident in implementing the "Way to Go" program in my classes. | | | | | |
| 2. I could have used additional help in implementing the "Way to Go" program. | | | | | |
| 3. Most of the students in my classes have used alcohol during the past month. | | | | | |
| 4. Very few of the students in my classes have ever tried marijuana. | | | | | |

Please indicate the courses in which you implemented the "Way to Go" program, and estimate the number of class sessions devoted to "Way to Go" in each course:

| Course number | Course name | Number of class sessions devoted to "Way to Go" over school year |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

I referred approximately (enter number)_____ students for drug or alcohol screening.

Any additional comments? _____

_____

Form Approved by Wood County School District Evaluation Committee

## Implementation Question #4: Was the New Disciplinary Policy Implemented?

Finally, the Wood County evaluation committee wants to find out whether the new disciplinary policy is being enforced. To do so, it decides to compare drug-related suspensions and expulsions in the first year of "Way to Go" with those in the previous year. As soon as Ms. Brown begins data collection she discovers, however, that the district's summary statistics do not distinguish drug-related from other disciplinary actions. As a result, Ms. Brown and the secretary have to review each action and note whether drugs were involved. This task takes considerable time, and not all cases are clear cut (the records do not always reveal whether drugs were involved in the action). Based on an initial records review, Ms. Brown groups the data for both years using the following format.

Wood County School District
Student Disciplinary Record Form
School Year _____

| | Disposition of incident (final action) | | | | | | |
|---|---|---|---|---|---|---|---|
| Nature of incident (describe, omitting names) | Parent conf. | Substance abuse assessment | Short suspension (one week or less) | Longer suspension (more than one week) | Expulsion | Other | Unknown |
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Form Approved by Wood County School District Evaluation Committee

Ms. Brown and the secretary could simply check off the number of drug-related incidents on a piece of paper, but that approach would not enable the committee to determine whether the disciplinary policy is being enforced. It also would not provide a record of the data collection process (i.e., the documentation) necessary to know whether Ms. Brown has done a thorough and accurate job. To avoid this record-searching work next summer and to ensure accuracy in reporting, the evaluation committee recommends to the superintendent that student disciplinary records be amended to include a specific category for drug-related disciplinary actions.

## The Comparison School District

Until now, this discussion has focused on evaluation activities in the Wood County School District. The reader may recall, however, that a subcommittee was appointed to approach a neighboring district about forming a comparison group for the evaluation. Fortunately, the neighboring district has agreed to cooperate. Because the comparison district is not implementing the "Way to Go" program, it will not be necessary to administer the "Way to Go" implementation data collections in that district. Nonetheless, the Wood County evaluators will want to know something about the nature and extent of drug education for 10th-grade students in the comparison site. If teachers and district officials in that site are willing, the comparison teachers likely to teach drug education (these will depend on the district and school) could answer a brief questionnaire similar to the posttest for the treatment teachers.

This questionnaire was designed for teachers at the comparison site:

End of School Year

Comparison Site Teacher (Posttest) Questionnaire

Please list the courses in which you taught drug education and the nature and amount of instruction you provided this school year.

| Course number | Drug education curriculum or approach used | Number of class sessions devoted to drug education over school year |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

Please indicate whether you agree or disagree with the following statements by placing an "X" in the appropriate box.

| | Agree strongly | Agree | Neither agree nor Agree | Disagree | Disagree strongly |
|---|---|---|---|---|---|
| 1. Most of the students in my classes have used alcohol during the past month. | | | | | |
| 2. Very few of the students in my classes have ever tried marijuana. | | | | | |

Have you ever used the "Way to Go" drug education program? (circle one) Yes No

Do you currently use any components of the "Way to Go" program? (circle one) Yes No

Have you referred any students for drug or alcohol treatment by school or outside professionals during this school year?

(circle one) Yes No If yes, please indicate number of students referred. _____

Asking questions such as these will enable the Wood County evaluation committee to know whether students in the comparison site get roughly equivalent amounts and types of drug education. It will also enable the comparison district to know more about the amount and nature of the drug education it provides. Finally, it is important to know whether any of the comparison teachers are using "Way to Go" components in order to conduct a more accurate analysis of student outcomes.

In the comparison district, the teacher questionnaire is administered at the same time as the treatment district teacher posttest. The procedure is similar to that outlined for the treatment district, although the cover letter is somewhat different and is signed by an official of the comparison district.

## Evaluating Student Outcomes

The committee designed its own instruments for evaluating the implementation of the "Way to Go" program because the program's combination of activities sufficiently differed from other programs that no existing source could provide a complete model. The committee borrowed ideas and questions for measuring the implementation of different program components from a variety of sources but merged them to make them fit the evaluation design. The instrument to measure program outcomes will be developed differently because the goals of the program—a reduction in student drug use, a delay in first use by students, and an increase in negative attitudes toward drugs—have been widely studied. As a result, many evaluators have developed measures to address these objectives, and there is a wide range of existing methods and measures from which to choose.

There are several advantages to using pre-existing methods and survey instruments (questionnaires) including the established validity and reliability of items, and the availability of existing comparison groups (based upon results derived from other administrations of the same instrument or individual items). There are also some issues to consider in using pre-existing survey instruments, including:

- Cost, as copyrighted surveys may have to be purchased;
- Ensuring validity, as the items may not specifically address the evaluation's concerns;
- Ensuring appropriate comparisons, as the characteristics of other groups that have used the same instrument or items may be quite different from those of participants in the program being evaluated.

The Wood County evaluation committee decides to review some of the most widely known questionnaires about student drug use. While reviewing these instruments, the committee keeps in mind that the Wood County evaluation will need to measure students' knowledge of drugs, attitudes toward drugs, and actual drug use, and that the survey will be limited to 10th-grade students. As mentioned earlier, it will be necessary to administer a questionnaire to Wood County 10th graders both before and after the implementation of the "Way to Go" program and to administer the same pretest and posttest to a comparison group of 10t-graders in the neighboring district. The questionnaire will have to gather student background information—such as race, gender, age, and educational attainment of parents—that will enable the committee to determine whether the two groups of students are comparable. The committee also hopes to use the student questionnaire to supplement the teacher data by providing the students' point of view on the implementation of the district's disciplinary policy and drug education curriculum. The section that follows provides examples of possible survey items for each Wood County objective drawn from well-known questionnaires.

The examples in this section are not intended to serve as a model questionnaire. There are two reasons the handbook is not providing a model, or even a set of instruments from which readers may choose. First, any questionnaire developed for the handbook would have borrowed heavily from existing questionnaires, so it would not have undergone the necessary validity and reliability checks. Second, no questionnaire provided here would be applicable to all districts or schools, so even if an instrument had been developed (and tested) it would still need to be altered by local evaluators. Instead, the following section presents sample items, and the appendix lists compendia of questionnaires. These compendia include information on the validity and reliability of a wide range of individual instruments.

## Rates of Drug Use

Ms. Brown and the committee have little trouble identifying appropriate questions on drug use in existing surveys. Even so, they must choose which drugs they want to ask about and specify the frequency and type of use. At the same time, they want to keep respondent burden to a minimum. They consider the following items.

Alternative One: from ***Monitoring the Future***[4]

1. On how many occasions have you had alcoholic beverages to drink...
   (Mark one circle for each line.)

| | 0 Occasions | 1-2 Occasions | 3-5 Occasions | 6-9 Occasions | 10-19 Occasions | 20-39 Occasions | 40+ |
|---|---|---|---|---|---|---|---|
| a. in your lifetime? | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| b. during the last 12 months? | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| c. during the last 30 days? | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |

2. Think back over the LAST 2 WEEKS. How many times have you had five or more drinks in a row? (A "drink" is a glass of wine, a bottle of beer, a wine cooler, a shot glass of liquor, or a mixed drink.)

O None
O Once
O Twice
❍ 3 to 5 times
❍ 6 to 9 times
❍ 10 or more times

3. On how many occasions (if any) have you been drunk or very high from drinking alcoholic beverages?

| | 0 Occasions | 1-2 Occasions | 3-5 Occasions | 6-9 Occasions | 10-19 Occasions | 20-39 Occasions | 40+ |
|---|---|---|---|---|---|---|---|
| a. in your lifetime? | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| b. during the last 12 months? | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| c. during the last 30 days? | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |

[4]***Monitoring the Future*** includes similar items for cigarettes, marijuana, LSD, cocaine, "crack" cocaine, amphetamines, barbiturates, narcotics, inhalants, and steroids.

Alternative Two: from the ***Youth Risk Behavior Survey***[5]

1. During the past 30 days, on how many days did you have at least one drink of alcohol?

   - ❍ 0 days
   - ❍ 1 or 2 days
   - ❍ 3 to 5 days
   - ❍ 6 to 9 days
   - ❍ 10 to 19 days
   - ❍ 20 to 29 days
   - ❍ All 30 days

2. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

   - ❍ 0 days
   - ❍ 1 or 2 days
   - ❍ 3 to 5 days
   - ❍ 6 to 9 days
   - ❍ 10 to 19 days
   - ❍ 20 or more days

[5]The ***Youth Risk Behavior Survey*** also includes similar items for cigarettes, marijuana, steroids, cocaine, and other drugs.

## First Use of Drugs

Because the "Way to Go" curriculum seeks not only to reduce drug use but also to delay first-time use, the committee could include the following questions.

From ***Monitoring the Future:***

When (if ever) did you FIRST do each of the following things? Don't count anything you took because a doctor told you to. (Mark one circle for each line.)

| | GRADE LEVEL | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Never | 4th or below | 5th | 6th | 7th | 8th | 9th | 10th |
| a. Smoke your first cigarette | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| b. Smoke cigarettes on a daily basis | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| c. Try an alcoholic beverage—more than just a few sips | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| d. Drink enough to feel drunk or very high | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| e. Try marijuana or hashish | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| f. Try "crack" cocaine | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| g. Try cocaine in powder form | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| h. Sniff glue, gases, or sprays to get high | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |
| i. Try steroids (anabolic steroids) | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ | ❍ |

## Intent to Use Drugs

In addition to asking students questions about their actual drug use, the committee could ask students if they intend to use drugs because this type of question helps to predict future drug use. The committee identifies a number of useful items in the ***Youth Risk Behavior Survey*** including the following question.

From the ***Youth Risk Behavior Survey:***

Do you think you will try cigarette smoking during the next 12 months?

- ❍ I have already tried cigarette smoking
- ❍ Yes, I think I will try cigarette smoking during the next 12 months
- ❍ No, I think I will not try cigarette smoking during the next 12 months

A different dimension of intent is measured in this item from the ***Prince George's County, MD, Drug Interest Survey,*** which asks students how they would respond if offered drugs.

From the ***Prince George's County, MD, Drug Interest Survey:***

If I were offered beer, wine, or liquor, I would:

- ❍ Say yes
- ❍ Maybe say yes
- ❍ I don't know what I'd do
- ❍ Maybe say no
- ❍ Say no

## Attitudes Toward Drugs

Because the "Way to Go" curriculum seeks to increase students' negative attitudes toward drug use, the committee might consider using the following item.

From ***Monitoring the Future:***

Individuals differ in whether or not they disapprove of people doing certain things. Do YOU disapprove of people doing each of the following? *(Mark one circle for each line.)*

| | Don't Disapprove | Disapprove | Strongly Disapprove | Can't Say, Drug Unfamiliar |
|---|---|---|---|---|
| a. Smoking one or more packs of cigarettes per day | ○ | ○ | ○ | ○ |
| b. Using smokeless tobacco regularly | ○ | ○ | ○ | ○ |
| c. Trying marijuana once or twice | ○ | ○ | ○ | ○ |
| d. Smoking marijuana occasionally | ○ | ○ | ○ | ○ |
| e. Smoking marijuana regularly | ○ | ○ | ○ | ○ |
| f. Trying cocaine in powder form once or twice | ○ | ○ | ○ | ○ |
| g. Taking cocaine powder occasionally | ○ | ○ | ○ | ○ |
| h. Trying "crack" cocaine once or twice | ○ | ○ | ○ | ○ |
| i. Taking "crack" cocaine occasionally | ○ | ○ | ○ | ○ |

## Perceived Risks

Because the "Way to Go" curriculum seeks to increase student knowledge about the risks involved in using drugs, Ms. Brown wants to include an item that measures student perceptions of those risks.

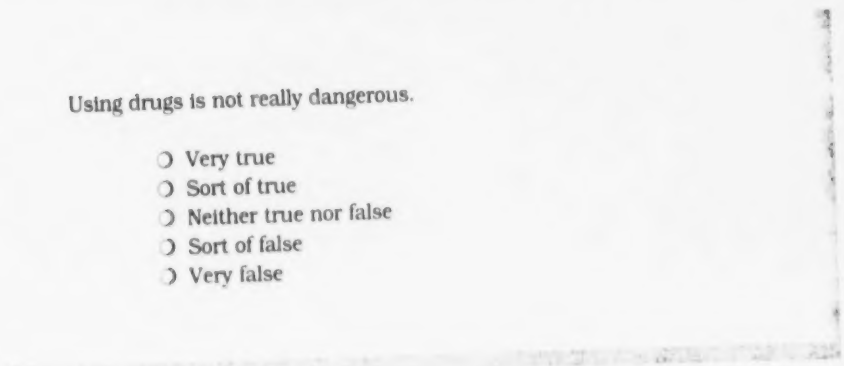
From ***Monitoring the Future:***

The next question asks for your opinions on the effects of using certain drugs and other substances. How much do you think people risk harming themselves (physically or in other ways) if they...

| | No Risk | Slight Risk | Moderate Risk | Great Risk | Can't Say, Drug Unfamiliar |
|---|---|---|---|---|---|
| a. Smoke one or more packs of cigarettes per day | ❍ | ❍ | ❍ | ❍ | ❍ |
| b. Use smokeless tobacco regularly | ❍ | ❍ | ❍ | ❍ | ❍ |
| c. Try marijuana once or twice | ❍ | ❍ | ❍ | ❍ | ❍ |
| d. Smoke marijuana occasionally | ❍ | ❍ | ❍ | ❍ | ❍ |
| e. Smoke marijuana regularly | ❍ | ❍ | ❍ | ❍ | ❍ |
| f. Try cocaine in powder form once or twice | ❍ | ❍ | ❍ | ❍ | ❍ |
| g. Take cocaine powder occasionally | ❍ | ❍ | ❍ | ❍ | ❍ |
| h. Try "crack" cocaine once or twice | ❍ | ❍ | ❍ | ❍ | ❍ |
| i. Take "crack" cocaine occasionally | ❍ | ❍ | ❍ | ❍ | ❍ |

The committee might also use this alternative question on perceived risks.

From the ***Prince George's County, MD, Drug Interest Survey:***




This survey includes similar questions on the specific risks of drinking, glue sniffing, using steroids, and smoking marijuana and PCP.

## Drug Education

The teacher survey measures implementation of the "Way to Go" curriculum from the teachers' perspective, but it is useful to measure implementation from the students' perspective as well. The committee believes that student viewpoints will enhance their understanding of the implementation of the curricular component of the "Way to Go" program. Generally speaking, multiple measures provide more confidence in evaluation findings than does a single measure. Furthermore, Ms. Brown argues that the committee should not put all of its data "eggs in one basket." Perhaps several teachers complain about the curriculum during the school year and then refuse to fill out the teacher posttest. The inclusion of a student measure of program implementation will help to ensure that the committee will have some indicator of program implementation to compare with student outcomes.

From ***Monitoring the Future:***

1. Have you had any drug education courses or lectures in school? (Mark one.)

   ❍ No
   ❍ No, and I wish I had
   ❍ Yes (If you answered "yes," please answer the following questions.)

2. Would you say that the information about drugs that you received in school classes or programs has...

   ❍ Made you less interested in trying drugs.
   ❍ Not changed your interest in trying drugs.
   ❍ Made you more interested in trying drugs.

3. How many of the following drug education experiences have you had in school? (Mark all that apply.)

   ❍ A special course about drugs
   ❍ Films, lectures, or discussions in one of my regular courses
   ❍ Films or lectures outside of my regular courses
   ❍ Special discussions or group sessions about drugs

4. Overall, how valuable were the drug education experiences to you?

   ❍ Little or no value
   ❍ Some value
   ❍ Considerable value
   ❍ Great value

These questions would have to be altered slightly in Wood County to make it clear that this year's drug education is the focus of the inquiry.

## Disciplinary Environment

The new disciplinary policy is an important component of the "Way to Go" program, so the committee wants to find out if students know about the policy and if the policy is reducing the availability of drugs in school.

The following item is from ***Monitoring the Future:***

How difficult do you think it would be for you to get each of the following types of drugs, if you wanted to? (Mark one circle for each line.)

| | Can't Say, Drug Unfamiliar | Probably Impossible | Very Difficult | Fairly Difficult | Fairly Easy | Very Easy |
|---|---|---|---|---|---|---|
| a. Cigarettes | ○ | ○ | ○ | ○ | ○ | ○ |
| b. Alcohol | ○ | ○ | ○ | ○ | ○ | ○ |
| c. Marijuana (pot, grass) | ○ | ○ | ○ | ○ | ○ | ○ |
| d. LSD | ○ | ○ | ○ | ○ | ○ | ○ |
| e. PCP (angel dust) | ○ | ○ | ○ | ○ | ○ | ○ |
| f. Amphetamines (uppers, pep pills, bennies, speed) | ○ | ○ | ○ | ○ | ○ | ○ |
| g. Barbiturates (downers, reds, yellows) | ○ | ○ | ○ | ○ | ○ | ○ |

At first glance, the committee thinks the above question is appropriate, but then a member points out that it is intended to measure general drug availability rather than at-school drug availability. The committee member offers an alternative item from the ***National Crime Survey—School Crime Supplement,*** that may be better suited to examining in-school use.

From the ***National Crime Survey—School Crime Supplement:***

How easy or hard is it for someone to get the following things at your school? (Mark one circle on each line.)

| | Easy | Hard | Impossible | Don't Know | Don't Know Drug |
|---|---|---|---|---|---|
| Alcoholic beverages | ○ | ○ | ○ | ○ | ○ |
| Marijuana | ○ | ○ | ○ | ○ | ○ |
| Cocaine | ○ | ○ | ○ | ○ | ○ |
| Uppers/downers | ○ | ○ | ○ | ○ | ○ |
| Other illegal drugs | ○ | ○ | ○ | ○ | ○ |

This item could help to gauge changes in student perceptions of drug availability at school, because a reduction in the availability of drugs at school is clearly one desired outcome of the new disciplinary policy and a possible intermediate step toward the reduction of student drug use.

Ms. Brown also identifies a number of items in the ***National Crime Survey—School Crime Supplement*** that could help to measure student awareness of the new disciplinary policy, including the following.

From the ***National Crime Survey—School Crime Supplement:***

What happens to a student who gets caught doing the following things in your school? (Mark all choices that apply.)

Being disrespectful to teachers?

- ❍ Nothing
- ❍ Student disciplined by teacher
- ❍ Student sent to the principal's office
- ❍ Student's parents are notified
- ❍ Detention
- ❍ Suspension
- ❍ Other—Specify _____
- ❍ Don't Know

Drinking or being drunk at school?

- ❍ Nothing
- ❍ Student disciplined by teacher
- ❍ Student sent to the principal's office
- ❍ Student's parents are notified
- ❍ Detention
- ❍ Suspension
- ❍ Other—Specify _____
- ❍ Don't Know

Of course, this item includes a behavior that is not directly related to drug use. Furthermore, the item does not ask about the disciplinary actions taken as a result of drug use or possession. Ms. Brown decides to modify the item, yet retain its format, by adding the following category and choices.

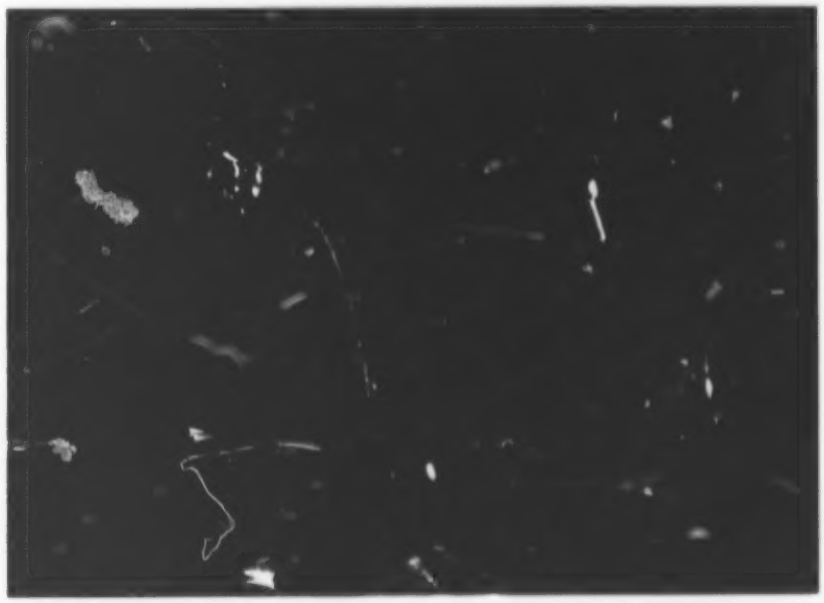
Ms. Brown's substitute question:

What happens to a student who gets caught doing the following things in your school? (Mark all choices that apply.)

Possessing illegal drugs at school?

- ) Nothing
- ) Student disciplined by teacher
- ) Student sent to the principal's office
- ) Student's parents are notified
- ) Detention
- ) Suspension
- ) Expulsion
- ) Other—Specify _____
- ) Don't Know

Responses to this question can help to determine what proportion of students know about the school's policy. Findings about student knowledge of the disciplinary policy could be reported as an intermediate outcome in the evaluation because student knowledge is not only a means to an end (preventing drug use at school), but may be a critical intermediate step.



To gauge the general disciplinary climate at home as well as at school, the committee could also consider the following item.

From the ***Prince George's County, MD, Drug Interest Survey:***

If your parents knew you were smoking cigarettes, do you think you would get in trouble at home?

- ❍ Yes
- ❍ Probably
- ❍ I'm not sure
- ❍ Probably not
- ❍ No

If your parents knew you were drinking beer, wine, or liquor, do you think you would get in trouble at home?

- ❍ Yes
- ❍ Probably
- ❍ I'm not sure
- ❍ Probably not
- ❍ No

## Drug Availability and Acceptability

One of the goals of the "Way to Go" program is to create a normative climate that makes drug use unacceptable. To measure whether the curriculum is having the desired effects on the school environment, the committee could include the following item.

From ***Monitoring the Future:***

How many of your friends would you estimate...

| | None | A Few | Some | Most | All |
|---|---|---|---|---|---|
| a. Smoke cigarettes? | ❍ | ❍ | ❍ | ❍ | ❍ |
| b. Use smokeless tobacco? | ❍ | ❍ | ❍ | ❍ | ❍ |
| c. Drink alcoholic beverages (liquor, beer, wine)? | ❍ | ❍ | ❍ | ❍ | ❍ |
| d. Get drunk at least once a week? | ❍ | ❍ | ❍ | ❍ | ❍ |
| e. Smoke marijuana or hashish? | ❍ | ❍ | ❍ | ❍ | ❍ |

The committee might also use the following items:

From the ***Prince George's County, MD, Drug Interest Survey:***

1. How often are you around kids who smoke cigarettes?

   ❍ Never
   ❍ Almost never
   ❍ Sometimes
   ❍ A lot
   ❍ Always

2. How often are you around kids who drink beer, wine, or liquor?

   ❍ Never
   ❍ Almost never
   ❍ Sometimes
   ❍ A lot
   ❍ Always

## Student Background

Demographic and other background information will help the committee to determine whether subgroups of students respond differently to "Way to Go." The demographic data will also be used to determine if the comparison group of 10th graders in the neighboring school district does, in fact, resemble Wood County's 10th graders. Demographic information could also be used to "target" components of the "Way to Go" program more closely to groups of students who appear more likely to use drugs.

Background questions from ***Monitoring the Future:***

1. How old were you on your last birthday?

- ❍ 11 years old or less
- ❍ 12 years old
- ❍ 13 years old
- ❍ 14 years old
- ❍ 15 years old
- ❍ 16 years old
- ❍ 17 years old
- ❍ 18 years old or more

2. What is your sex?

- ❍ Male
- ❍ Female

3. How do you describe yourself?

- ❍ Native American or American Indian
- ❍ Black or African American
- ❍ Mexican American or Chicano
- ❍ Cuban American
- ❍ Puerto Rican American
- ❍ Other Latin American
- ❍ Oriental or Asian American
- ❍ White or Caucasian
- ❍ Other

4. What was the first language you learned to speak when you were a child? (Mark one.)

- ❍ English
- ❍ Spanish
- ❍ Some other language

5. Where are you living now?

- ❍ On a farm
- ❍ In the country, not on a farm
- ❍ In a city or town

6. Which of the following people live in the same household with you? (Mark all that apply.)

- ❍ Father (or stepfather)
- ❍ Mother (or stepmother)
- ❍ Brothers (or stepbrothers)
- ❍ Sisters (or stepsisters)
- ❍ Grandparent(s)
- ❍ Other relative(s)
- ❍ Non-relative(s)
- ❍ I live alone

7. On average, how much time do you spend after school each day at home with no adult present? (Mark one.)

- ❍ None or almost none
- ❍ Less than 1 hour
- ❍ 1-2 hours
- ❍ 2-3 hours
- ❍ More than 3 hours

The next three questions ask about your parents. If you were raised mostly by foster parents, stepparents, or others, answer for them. For example, if you have both a stepfather and a natural father, answer for the one who was most important in raising you.

8. What is the highest level of schooling your father completed?

- ❍ Completed grade school or less
- ❍ Some high school
- ❍ Completed high school
- ❍ Some college
- ❍ Completed college
- ❍ Graduate or professional school after college
- ❍ Don't know, or does not apply

9. What is the highest level of schooling your mother completed?

- ❍ Completed grade school or less
- ❍ Some high school
- ❍ Completed high school
- ❍ Some college
- ❍ Completed college
- ❍ Graduate or professional school after college
- ❍ Don't know, or does not apply

10. Does your mother have a paid job?

- ❍ No
- ❍ Yes, part-time job
- ❍ Yes, full-time job

Finally, students are asked to name their science, health, and physical education teachers for the current semester.

## Administration of the Student Questionnaires

Although the committee has now identified useful items from a range of surveys, it wants to keep respondent burden—the amount of time it takes to fill out the questionnaire—to a minimum. This is true for both Wood County students and perhaps even truer for those in the comparison site. In addition, Ms. Brown knows that she will have to compile and analyze all of the data, so she wants to keep the questionnaires as short as possible. There is no perfect solution here, just a reminder to ***set questionnaire time limits, clarify subject matter priorities, and stick with them.***

After heated committee debate about which items to include, the student questionnaire is kept to a length that members estimate can be completed in half an hour. An English teacher reviews the items and estimates that they can be read with good comprehension by almost all 10th-grade students. At this point, Ms. Brown conducts a pilot test of the questionnaire with a summer school class composed of students who will be entering the 11th grade in the fall. There are no identifiers on the questionnaire so that the students' responses will remain anonymous. The students are encouraged to note places where changes in language might make the items more appropriate for high school students. Ms. Brown reports to the committee that the students took an average of 40 minutes to complete the questionnaire. Several students recommended that the actual questionnaire include a cover page that reassures students about the confidentiality of their responses. Ms. Brown makes several revisions to shorten the student instrument. She also analyzes the individual responses on the pilot test for reliability and then destroys the pilot test questionnaires.

Preparations are begun for administration of the fall pretest. Because the questionnaire is only for 10th-grade students, the committee decides that the best place to administer the survey is in 10th-grade homerooms. (The idea of a mail questionnaire for 10th graders is rejected, as the committee believes that the nonresponse rate would be too great.) It is further decided that, to assure students about confidentiality, the questionnaire will be passed out and collected by someone other than the regular homeroom teacher. Teachers who rarely come in contact with 10th-grade students (e.g., teachers of advanced science or math courses) will be asked to switch homerooms with the 10th-grade homeroom teachers. In this

way, the persons administering the questionnaire will be unfamiliar to the students. (Homeroom lasts only 45 minutes so it is critical that the questionnaire be short enough to be completed in that period.) The committee considers and rejects the idea of administering the questionnaire to an assembly of 10th-grade students. Several members believe that in the assembly setting many students would discuss answers with each other, and it might be difficult to ensure the return of all surveys.

Ms. Brown abides by appropriate Federal, state, and district rules for parental consent to administer questionnaires to students. During the first week of school, she mails a letter to the parents of all 10th-grade students, over the superintendent's signature, explaining the new program and the evaluation. She indicates that students will be surveyed before and after program implementation, and that the survey will ask questions about drug use. She notes that responses will be held in strict confidence. Parents are asked to indicate whether they will permit their children to participate in the evaluation by signing an attached form and mailing it to school in a self-addressed, stamped envelope. The same procedure is followed in the comparison district.

After follow-up phone calls to nonrespondents, a small number of parents asks that their children be excused from the survey. If resources were available, the committee could analyze the characteristics of these 10th graders to see how they compare with participants along such dimensions as race, gender, and grade point average—data that are already available through the school system. During analysis, Ms. Brown and the committee will want to compare actual respondents with aggregate information on the 10th-grade student body to see whether the respondents reflect the overall group.

To assure confidentiality (and a discreet questionnaire administration) in homerooms, students will not be asked to sign their names or provide other identifying

information on their questionnaires. It is decided that teachers who will administer the questionnaire will be given a set of forms with precoded student identification numbers (random numbers matched to actual numbers on a master list retained by Ms. Brown). Each questionnaire will have a removable self-stick note with the student name attached. As the teacher calls the name, he or she will hand the student the survey and remove and discard the self-stick note. Students will also be provided with blank envelopes in which to place their completed questionnaires before they drop them in a box at the back of the room. Fifteen minutes before the end of the administration period, students will be asked to fill out the individual background items, if they have not already done so. Students whose parents have asked that they be excluded will be treated in a way that does not call attention to them. They will be given a different questionnaire that asks nothing about drugs and has no identifying marks.

The committee is concerned that students who are absent the day of questionnaire administration be given an opportunity to complete a survey. It is decided that students who are not present at homeroom the day of questionnaire administration (or who fail to return their questionnaires) will be given the questionnaire in another class during the following week and given time to fill it out. The teacher in that class will be asked to distribute and collect the questionnaires. Nonetheless, the committee is aware that some students, possibly those most likely to use drugs, may still not fill out questionnaires. Committee members also know that some responses will probably be unusable because the students will answer items incorrectly or leave too many answers blank. The committee concludes, however, that there is no inexpensive way to ensure 100 percent participation.

Aside from increasing the likelihood of a high response rate, another reason to avoid a long questionnaire is to make it relatively easy for Ms. Brown and her assistant to enter responses into the computer. One way to enter a large number of responses is to develop a machine-readable answer format. Once questionnaires are received, Ms. Brown and her assistant use a simple computer program to enter student answers. They also merge each student's questionnaire response with data on his or her course schedule (already computerized, in most districts) that will enable them to match the student to his or her health, physical education, and science teachers.

Administration of the posttest is conducted in the same manner. The same questionnaire is used. While use of the same items is sometimes unwise—answers on the pretest can influence answers on the posttest—the sizable period of time that has elapsed (fall to late spring) makes it unlikely that students will recall their previous responses.

## Findings From Wood County

This section provides sample findings derived from the Wood County data collections. The presentation of findings demonstrates how information can be aggregated and displayed. The presentation uses both narrative and graphic displays. None of the findings reported in this section requires sophisticated statistical analysis. The first findings are presented narratively, the later findings as tables and graphs.

### Attendance at In-Service Training

Based on the attendance sheets collected from the training sessions, Ms. Brown produced the following data summary:

- Of 25 health, physical education, and science teachers scheduled to attend the week-long staff training for the "Way to Go" curriculum, 18 attended all five sessions, 4 missed one session, and 3 failed to attend.
- All 3 health teachers attended the full week, as did 9 of 10 physical education teachers. Of the science teachers, 6 attended the full week, 3 missed one session, and 3 did not attend.

In short, most teachers scheduled to receive the training did attend. A disproportionate share of those who did not attend were science teachers.

### Staff Likelihood of Implementing "Way to Go"

The pretest was administered to all 25 teachers scheduled to implement the "Way to Go" curriculum with 10th-grade classes. After mail and telephone follow-up, 24 teachers returned pretest questionnaires. The results showed that:

- Most teachers (17) agreed with the statement "I feel confident that I can implement the 'Way to Go' program in my classes." Of those teachers, 10 agreed strongly. Only two teachers disagreed with the statement (none strongly). The rest were neutral. There were no major differences by subject taught (health, science, or physical education).
- Six of the 24 teachers agreed or agreed strongly with the statement "Although important, implementing 'Way to Go' will take time from more important topics." Five of the six were science teachers (including the three who did not attend training).

Based on these findings, Ms. Brown concludes that a high overall level of implementation appears likely but that a subset of science teachers might not implement the program fully.

## Teacher Implementation of "Way to Go"

The results of the teacher posttest appeared to bear out Ms. Brown's initial concerns. Here is a display that shows the number of 50-minute sessions devoted to "Way to Go" by the 23 teachers who returned the posttest. (Incidentally, staff changes during the year resulted in posttests returned by two teachers who had not participated in training or in the pretest. Ms. Brown elected to keep the two teachers in the end-of-year findings because she wanted to link their responses with those of their students.)

Teacher reports of number of 50-minute class sessions per school year devoted to "Way to Go" (n = 23)

| Teachers' subject area | Average number of class sessions devoted to "Way to Go" | Range in number of class sessions |
|---|---|---|
| Science | 4.5 | 0-12 |
| Physical education | 6.2 | 3-10 |
| Health | 9.9 | 8-12 |

Source: Wood County Teacher Survey

## Enforcement of the New Disciplinary Policy

As Ms. Brown had suspected at the outset of the evaluation, interpreting the information on disciplinary actions proved difficult. Here are the results of the review of records.

Drug-related disciplinary actions at Wood County High School, by type of action and school year

| Final action | 1991-92 | 1992-93 |
|---|---|---|
| Parent conference | 7 | 9 |
| Drug assessment | 0 | 8 |
| Short suspension (1 week or less) | 2 | 5 |
| Long suspension (more than 1 week) | 0 | 3 |
| Expulsion | 2 | 2 |
| Referrals: Police/arrests | 2 | 2 |

Source: Wood County Student Disciplinary Records

There was some increase in disciplinary actions in the first year of the program. The clearest change was the increase in the number of substance abuse assessments, a procedure that was adopted as part of the new policy. Ms. Brown argued that the increase in the use of the assessment procedure was itself an indication that the policy had been implemented. She concluded that it would take another year or more to see the effect of the policy on drug-related behavior at school.

## Student Outcomes

Most of the evaluation findings focused on student behavior. This section presents several tables to demonstrate how outcome findings may be displayed.

## Comparison Between Wood County and Comparison District

This table displays a behavioral comparison between Wood County and the neighboring district.

Percentage of 10th grade students who reported being **drunk at least once in the last 30 days, prior to and after implementation** of the "Way to Go" program, by school

| | Wood County High School (n = 249) | Comparison school (n = 182) |
|---|---|---|
| Fall 1992 (Before "Way to Go") | 23% | 28% |
| Spring 1993 (After "Way to Go") | 27% | 38% |
| Percentage difference | +17% | +36% |

Source: Wood County and Comparison District Student Surveys

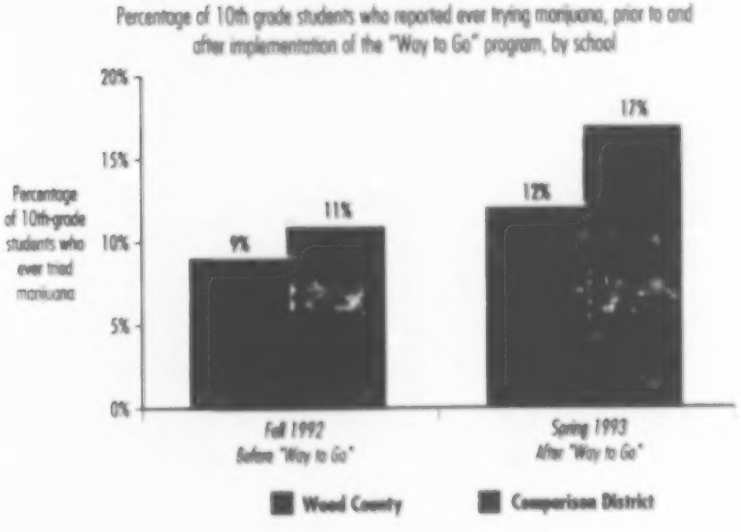
This table shows that 10th-grade students at Wood County High School were less likely to report being drunk prior to the implementation of the program than were students at the comparison school. At the end of the year, fewer additional Wood County students reported being drunk. The results are encouraging for the "Way to Go" program. It should be noted, however, that the initial differences in the two groups make definitive statements about the results of "Way to Go" difficult.

With respect to lifetime marijuana use, the positive results for the "Way to Go" program are clearer. (The results are displayed below in a table and as a bar chart.) The initial use levels at the two schools were closer, so the differences in changes are heartening. It should be noted, however, that the numbers of students who have ever tried marijuana are quite small, so any changes appear large and slight differences can be exaggerated.

Percentage of 10th grade students who reported ever **trying marijuana, prior to and after implementation** of the "Way to Go" program, by school

| | Wood County High School | Comparison school |
|---|---|---|
| Fall 1992 (Before "Way to Go") | 9% | 11% |
| Spring 1993 (After "Way to Go") | 12% | 17% |
| Percentage difference | +33% | +55% |

Source: Wood County and Comparison District Student Surveys



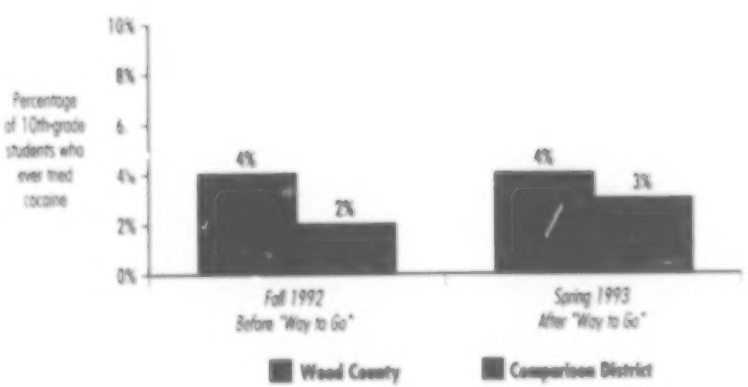
Even fewer students have ever tried cocaine, so that interpreting small changes in cocaine use is more difficult.

Percentage of 10th grade students who reported ever **trying cocaine prior to and after implementation** of the "Way to Go" program, by school

| | Wood County High School | Comparison school |
|---|---|---|
| Fall 1992 (Before "Way to Go") | 4% | 2% |
| Spring 1993 (After "Way to Go") | 4% | 3% |
| Percentage difference | No change | +50% |

Source: Wood County and Comparison District Student Surveys

Percentage of 10th grade students who reported ever trying cocaine prior to and after implementation of the "Way to Go" program, by school



## Variation Within Wood County High School

The next displays show "Way to Go" behavior effects for Wood County students exposed to varying amounts of instruction. It should be noted that health and physical education are electives at the 10th-grade level in Wood County, so student exposure will vary, and those students who elect to take health or physical education may differ in some (unknown) ways from those who do not. To ascertain exposure levels, Ms. Brown grouped the data in the following ways.

Wood County High School 10th grade students who reported **being drunk at least once in the last 30 days**, by exposure to "Way to Go"

| Amount of exposure (number of courses with "Way to Go" components) | Number of students | Fall (Before "Way to Go"), percent of students | Spring (After "Way to Go"), percent of students | Percentage difference |
|---|---|---|---|---|
| 0 courses | 29 | 31% | 36% | +16% |
| 1 | 69 | 20% | 23% | +15% |
| 2 | 104 | 22% | 24% | +9% |
| 3 or more | 65 | 25% | 23% | -8% |

Source: Wood County and Comparison District Student Surveys

Several observations are in order. First, it appears that some students did not receive any exposure to "Way to Go," and that those students had a higher initial likelihood of getting drunk in the past 30 days. The rate of increase in getting drunk from fall to spring was essentially the same for students with no exposure at all and those with exposure in only one course. Students with exposure in two courses reported being drunk in the past 30 days more often after the program, but their rate of increase was smaller than that of students with less exposure. Only students with exposure in three or more courses showed actual declines over the period.

Ms. Brown also reported on behavior effects in relation to hours of "Way to Go" instruction (total exposure). Below is the table she used to display those data.

Percentage of Wood County High School 10th-grade students who reported having been **drunk at least once in the last 30 days, prior to and after implementation** of "Way to Go," by hours of instruction

| Hours of "Way to Go" instruction | Number of students | Fall (Before "Way to Go") | Spring (After "Way to Go") | Percentage difference |
|---|---|---|---|---|
| No instruction | 29 | 31% | 36% | +16% |
| 1-10 | 40 | 25% | 29% | +16% |
| 11-20 | 109 | 24% | 26% | +8% |
| 21-30 | 71 | 25% | 25% | 0 |

Source: Wood County Student Surveys

Based on these data, Ms. Brown reports to the board that total exposure time appears to play an important role in the effectiveness of the "Way to Go" program. Of course, it may also be that students who elect to take health and physical education have other characteristics that help to determine the observed effects. There is no way to know for certain. The data also show that some of the students with the highest reported alcohol intake are not being reached by the program, probably because they do not elect health or physical education and their science instructors are the ones least likely to implement "Way to Go."

## Attitudes Toward Drug Use

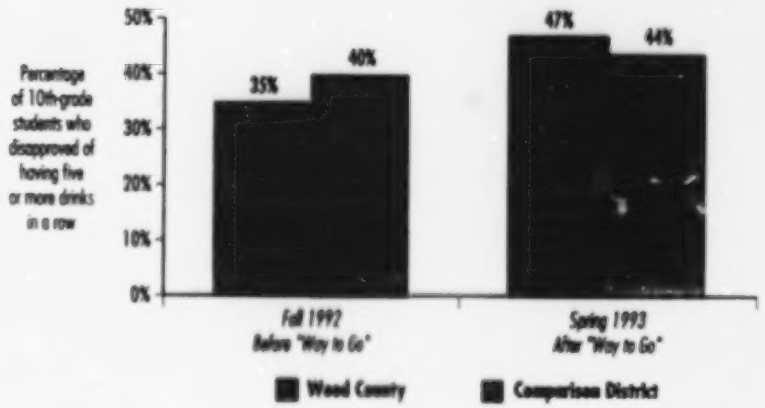
Ms. Brown also chose to report on changes in attitudes and perceptions of risk as a result of the program. Here are two sets of displays that compare Wood County and its neighboring district. The first set shows data on negative attitudes toward alcohol use before and after the program.

Percentage of 10th-grade students who **disapproved or strongly disapproved of having five or more drinks** in a row, prior to and after implementation of the "Way to Go" program, by school

| | Wood County High School (n = 249) | Comparison school (n = 182) |
|---|---|---|
| Fall 1992 (Before "Way to Go") | 35% | 40% |
| Spring 1993 (After "Way to Go") | 47% | 44% |
| Percentage difference | +34% | +10% |

Source: Wood County and Comparison District Student Surveys

Percentage of 10th-grade students who disapproved or strongly disapproved of having five or more drinks in a row, prior to and after implementation of the "Way to Go" program, by school



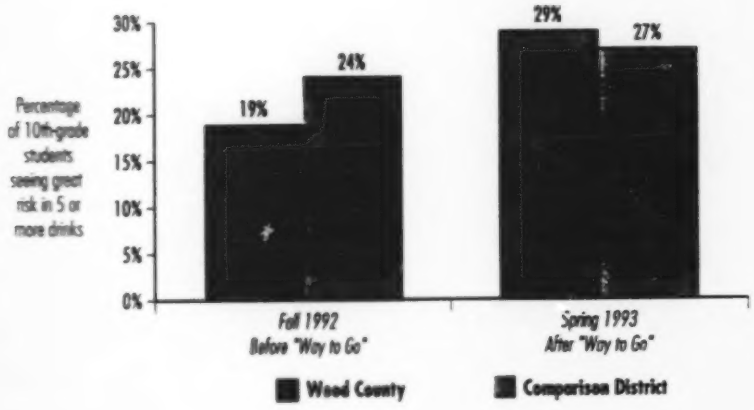
These data show changes in perceived risks of heavy alcohol use.

Percentage of 10th grade students who **saw great risk in having five or more drinks** in a row, prior to and after implementation of the "Way to Go" program, by school

| | Wood County High School (n = 249) | Comparison school (n = 182) |
|---|---|---|
| Fall 1992 (Before "Way to Go") | 19% | 24% |
| Spring 1993 (After "Way to Go") | 29% | 27% |
| Percentage difference | +53% | +13% |

Source: Wood County and Comparison District Student Surveys

Percentage of 10th grade students who saw great risk in having five or more drinks in a row, prior to and after implementation of the "Way to Go" program, by school



After the program, Wood County students appear to see risks associated with alcohol use considerably more often than do the students in the neighboring district. Interestingly, these differences between Wood County and the comparison district appear greater than the differences in actual alcohol use. Ms. Brown cites these findings as encouraging for future behavior.

These are just a few of the initial findings of the Wood County evaluation. More results will be forthcoming from the fall prevalence survey of 11th-grade students. These findings reflect the first year of implementation of the "Way to Go" program. In year two, the drug education coordinator is going to concentrate on obtaining greater uniformity in disciplinary policy implementation and teacher participation, particularly among science teachers. The comparison district is now also considering the use of "Way to Go." If it decides to adopt the program, however, Wood County will have to find another comparison site for the evaluation.

The brief appendix that follows will provide the reader with additional information on where to turn for assistance in developing and implementing a school, district, or agency evaluation plan.

# APPENDIX

Prevention evaluation guides that address drug prevention specifically include:

D.C. Gottfredson, D.J. Hawkins, and B. Nederhood, *Handbook for Evaluating Drug and Alcohol Prevention Programs, A Guide Prepared for Use in the Maryland Evaluation of Drug Prevention Programs for High-Risk Youth*, Institute for Criminal Justice and Criminology, University of Maryland, October 1990. While some of the information is intended solely for Maryland-based programs, this evaluation guide presents an overview of evaluation issues and a detailed discussion of an evaluation method (program development evaluation). It also contains an extensive appendix on conducting community needs assessment.

IOX Associates, *Program Evaluation Handbook: Drug Abuse Education*, P.O. Box 24095, Los Angeles, CA 90024-0095. This handbook contains an overview of evaluation and 20 short instruments on drug use, drug knowledge, refusal and decision-making skills, perceived attitudes of friends and family, perceived effects of illegal drugs, and perceived seriousness of legal consequences resulting from drug use. The handbook contains detailed instructions on questionnaire administration and scoring.

J.A. Linney and A. Wandersman, *Prevention Plus III, Assessing Alcohol and Other Drug Prevention Programs at the School and Community Level*, Center for Substance Abuse Prevention, U.S. Department of Health and Human Services, 5600 Fishers Lane, Rockwall II, Rockville, MD 20857. This guide describes evaluation as a four-step process: Step 1: Identify goals and desired outcomes; Step 2: Process assessment; Step 3: Outcome assessment; and Step 4: Impact assessment.

D.P. Moberg, *Evaluation of Prevention Programs: A Basic Guide for Practitioners*, by D. Paul Moberg, copyright 1984 by the Board of Regents of the University of Wisconsin System for the Wisconsin Clearinghouse. This document provides an overview of evaluation that defines key terms, outlines the major steps in evaluation, and is particularly suited to evaluations conducted by community agencies.

National or regional surveys cited in this report include:

*Monitoring the Future* is a continuing study conducted by the University of Michigan's Institute for Social Research. The questions address attitudes and behaviors and are designed for 8th-, 10th-, and 12th-grade students. Although a significant number of the questions deal with drugs and alcohol, the majority deal with other topics, such as family and school. The questionnaire also includes a section of demographic questions, as well as questions about education of parents, religion, educational achievement and aspirations, and part-time employment

*The National Household Survey on Drug Abuse*, conducted by the National Institute on Drug Abuse, contains numerous items to measure frequency and recency of use for a variety of substances. There are sections on alcohol, sedatives, tranquilizers, stimulants, analgesics, marijuana and hashish, inhalants, cocaine, hallucinogens, heroin, drugs in general, smokable methamphetamine ("ice"), anabolic steroids, trouble with the law, alcohol and drug problems, drug treatment, and perceived risk from drug use. The survey, which is intended for persons 12 years or older, is designed to be administered by an in-person interviewer.

*The Youth Risk Behavior Survey (YRBS)* asks a wide array of questions about health behavior, including automotive and bicycle safety, swimming, weapons, fights, thoughts of suicide, drugs (including cigarettes, alcohol, marijuana, cocaine, steroids, and other drugs) AIDS, sexual activity, dieting, and exercise. The survey is designed for junior and senior high school students.

*The National Crime Survey, School Crime Supplement* asks students 12 years or older about crime and victimization at school.

*The Prince George's County Maryland School District Drug Interest Survey* asks students 10 years and older about their attitudes toward, and use of, tobacco, alcohol, and other drugs.

The following reports describe and assess a variety of instruments, including instruments that could be used in evaluations of drug use prevention programs.

R.M. Gabriel, J.M. Pollard and J.A. Arter, *Surveys of Student Alcohol and Other Drug Use: A Consumer's Guide*, Northwest Regional Education Laboratory, Portland, OR, 1991: $10.40.

D.C. Gottfredson, M.A. Harmon, J.A. Lopes, D.L. Stanley, and G.D. Gottfredson, *Compendium of Instruments to Measure Drug Use and Risk Factors for Drug Use*, Institute of Criminal Justice and Criminology, University of Maryland, 1990: $20.00.

C.L. Kumpfer, G.H. Shur, J.G. Ross, and J.L. Librett, *Measurement in Prevention, A Manual for the Selection and Use of Instruments to Evaluate Prevention Programs*, Office for Substance Abuse Prevention, U.S. Department of Health and Human Services, Rockville, MD (this report is scheduled to be published in October 1992).

Additional information on topics addressed in this handbook as well as specific assistance in conducting evaluations may be obtained by contacting the U.S. Department of Education Regional Centers for Drug-Free Schools and Communities. They include:

Northeast Regional Center for Drug-Free
Schools and Communities
12 Overton Avenue
Sayville, NY 11782
(516) 589-7894

Southeast Regional Center for Drug-Free Schools
and Communities
Spencerian Office Plaza
University of Louisville
Louisville, KY 40292
(502) 588-0052

Midwest Regional Center for Drug-Free Schools
and Communities
1900 Spring Road
Oak Brook, IL 60521
(708) 571-4710

Southwest Regional Center for Drug-Free Schools
and Communities
The University of Oklahoma
555 Constitution, Suite 138
Norman, OK 73037-0005
(800) 234-7972

Western Regional Center for Drug-Free Schools
and Communities
101 SW. Main Street, Suite 500
Portland, OR 97204
(503) 275-9480





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